IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF WYOMING

UNITED STATES OF AMERICA, Plaintiff, STATE OF OKLAHOMA and STATE OF WYOMING, Plaintiff-Intervenors, v. SINCLAIR TULSA REFINING COMPANY, SINCLAIR WYOMING REFINING COMPANY, and SINCLAIR CASPER REFINING COMPANY, Defendants.	CIVIL ACTION NO. _____ JUDGE

CONSENT DECREE

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CONSENT DECREE

WHEREAS, Plaintiff the United States of America ("United States"), by the authority of the Attorney General of the United States and through its undersigned counsel, acting at the request and on behalf of the United States Environmental Protection Agency ("EPA"), Plaintiff-Intervenor the State of Oklahoma ("Oklahoma"), on behalf of the Oklahoma Department of Environmental Quality, and Plaintiff-Intervenor the State of Wyoming ("Wyoming"), on behalf of the Wyoming Department of Environmental Quality (collectively "Plaintiff-Intervenors" or "Co-Plaintiffs"), have simultaneously filed Complaints and lodged this Consent Decree against defendants Sinclair Tulsa Refining Company ("STRC"), Sinclair Wyoming Refining Company ("SWRC") and Sinclair Casper Refining Company ("SCRC") (collectively "the Sinclair Refineries") for alleged environmental violations at the petroleum refineries in the following locations: Tulsa, Oklahoma ("Tulsa Refinery"); Sinclair, Wyoming ("Sinclair Wyoming Refinery"); and Casper, Wyoming ("Casper Refinery");

WHEREAS, the United States alleges, upon information and belief, that each of the Sinclair Refineries has violated and/or continues to violate the following statutory and regulatory provisions:

1) Prevention of Significant Deterioration ("PSD") requirements found at Part C of Subchapter I of the Clean Air Act (the "Act"), 42 U.S.C. §§ 7475 and the regulations promulgated thereunder at 40 C.F.R. § 52.21 (the "PSD Rules"); and "Plan Requirements for Non Attainment Areas" at Part D of Subchapter I of the Act, 42 U.S.C. §§ 7502-7503 and the regulations promulgated thereunder at 40 C.F.R. § 51.165(a) and (b) and at Title 40, Part 51, Appendix S and at 40 C.F.R. § 52.24 ("PSD/NSR Regulations"), for heaters and boilers and fluid catalytic cracking unit catalyst regenerators for nitrogen oxide ("NOx"), sulfur dioxide ("SO_2"), carbon monoxide ("CO") and particulate matter ("PM");

2) New Source Performance Standards ("NSPS") found at 40 C.F.R. Part 60, Subparts A and J, under Section 111 of the Act, 42 U.S.C. § 7411 ("Refinery NSPS Regulations"), for sulfur recovery plants, fuel gas combustion devices and fluid catalytic cracking unit catalyst regenerators;

3) Leak Detection and Repair ("LDAR") requirements promulgated pursuant to Sections 111 and 112 of the Act, and found at 40 C.F.R. Part 60 Subparts VV and GGG; 40 C.F.R. Part 61, Subparts J and V; and 40 C.F.R. Part 63, Subparts F, H and CC ("LDAR Regulations"); and

4) National Emission Standards for Hazardous Air Pollutants ("NESHAP") for Benzene Waste Operations promulgated pursuant to Section 112(e) of the Act, and found at 40 C.F.R. Part 61, Subpart FF ("Benzene Waste Operations NESHAP Regulations"); and

WHEREAS, the United States also specifically alleges that, upon information and belief, each of the Sinclair Refineries has been and/or continues to be in violation of the state implementation plans ("SIPs") and other state rules and regulations adopted by the states in which the Sinclair Refineries are located to the extent that such plans, rules, or regulations implement, adopt or incorporate the above-described federal requirements;

WHEREAS, the United States further alleges that the Sinclair Refineries have violated and/or continue to violate the reporting requirements found at Section 103(a) of the Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA"), 42 U.S.C. § 9603(a), and Section 304(b) and (c) of the Emergency Planning and Community Right-to-Know Act ("EPCRA"), 42 U.S.C. § 11004(b) and (c), and the regulations promulgated thereunder;

WHEREAS, Oklahoma and Wyoming have joined in this matter alleging violations of their respective applicable SIP provisions and/or other state rules and regulations incorporating and implementing the foregoing federal requirements; in particular, Wyoming has issued notices of violation against the Casper Refinery (Docket numbers 3366-02 and 3426-02) and the Sinclair Wyoming Refinery (Docket number 3368-02).

WHEREAS, each of the Sinclair Refineries denies that it has violated the foregoing statutory, regulatory and SIP provisions and the state and/or local rules and regulations incorporating and implementing the foregoing federal requirements, and maintains that it has been and remains in compliance with all applicable statutes, regulations and permits and is not liable for civil penalties and injunctive relief;

WHEREAS, with respect to the provisions of Section V.J. ("Control of Acid Gas Flaring Incidents and Tail Gas Incidents") of this Consent Decree, EPA maintains that "[i]t is the intent of the proposed standard [40 C.F.R. § 60.104] that hydrogen-sulfide-rich gases exiting the amine regenerator [or sour water stripper gases] be directed to an appropriate recovery facility, such as a Claus sulfur plant," *see* Information for Proposed New Source Performance Standards: Asphalt Concrete Plants, Petroleum Refineries, Storage Vessels, Secondary Lead Smelters and Refineries, Brass or Bronze Ingot Production Plants, Iron and Steel Plants, Sewage Treatment Plants, Vol. 1, Main Text at 28;

WHEREAS, EPA further maintains that the failure to direct hydrogen-sulfide-rich gases to an appropriate recovery facility -- and instead to flare such gases under circumstances that are not sudden or infrequent or that are reasonably preventable -- circumvents the purposes and intentions of the standards at 40 C.F.R. Part 60, Subpart J;

WHEREAS, EPA recognizes that "Malfunctions," as defined in Part IV of this Consent Decree and 40 C.F.R. § 60.2, of the "Sulfur Recovery Plants" or of "Upstream Process Units" may result in flaring of "Acid Gas" or "Sour Water Stripper Gas" on occasion, as those terms are defined herein, and that such flaring does not violate 40 C.F.R. § 60.11(d) if the owner or operator, to the extent practicable, maintains and operates such units in a manner consistent with good air pollution control practice for minimizing emissions during these periods;

WHEREAS, projects undertaken pursuant to this Consent Decree are for the purposes of abating or controlling atmospheric pollution or contamination by removing, reducing, or preventing the creation of emission of pollutants ("pollution control facilities") and as such, may be considered for certification as pollution control facilities by federal, state, or local authorities;

WHEREAS, a predecessor to STRC and SWRC previously conducted third-party audits for compliance with the Benzene Waste Operations NESHAP at the Tulsa Refinery and Sinclair Wyoming Refinery, respectively, and disclosed their findings to the U.S. EPA Region 6 and Region 8 on April 1, 2004;

WHEREAS, the United States is engaged in a federal strategy for achieving cooperative agreements with petroleum refineries in the United States to achieve across the board reductions in emissions ("Global Settlement Strategy");

WHEREAS, by entering into this Consent Decree, the Sinclair Refineries have indicated that they are committed to pro-actively resolving environmental concerns relating to their operations;

WHEREAS, the United States anticipates that the affirmative relief and environmental projects identified in Parts V and VII of this Consent Decree will reduce emissions of nitrogen oxide by approximately 1,100 tons annually, will reduce emissions of sulfur dioxide by approximately 4,600 tons annually, and will also result in reductions of volatile organic compounds and particulate matter ("PM");

WHEREAS, discussions between the Parties have resulted in the settlement embodied in the Consent Decree;

WHEREAS, the Sinclair Refineries have waived any applicable federal or state requirements of statutory notice of the alleged violations;

WHEREAS, notwithstanding the foregoing reservations, the Parties agree that: (a) settlement of the matters set forth in the Complaint (filed herewith) is in the best interests of the Parties and the public; and (b) entry of the Consent Decree without litigation is the most appropriate means of resolving this matter;

WHEREAS, the Parties recognize, and the Court by entering the Consent Decree finds, that the Consent Decree has been negotiated at arms length and in good faith and that the Consent Decree is fair, reasonable, and in the public interest;

NOW THEREFORE, with respect to the matters set forth in the Complaint, and in Part XVI of the Consent Decree ("Effect of Settlement"), and before the taking of any testimony, without adjudication of any issue of fact or law, and upon the consent and agreement of the Parties to the Consent Decree, it is hereby ORDERED, ADJUDGED and DECREED as follows:

I. JURISDICTION AND VENUE

1. This Court has jurisdiction over the subject matter of this action and over the Parties pursuant to 28 U.S.C. §§ 1331, 1345, 1355, and 1367(a). In addition, this Court has jurisdiction over the subject matter of this action pursuant to Sections 113(b) and 167 of the CAA, 42 U.S.C. §§ 7413(b) and 7477, Section 325(b) of EPCRA, 42 U.S.C. § 11045(b), and Section 109(c) of CERCLA, 42 U.S.C. § 9609(c). The Complaint states a claim upon which relief may be granted for injunctive relief and civil penalties against the Sinclair Refineries under the Clean Air Act, EPCRA, and CERCLA. The authority of the United States to bring this suit is vested in the United States Department of Justice by 28 U.S.C. §§ 516 and 519 and Section 305 of the CAA, 42 U.S.C. § 7605, Section 325 of EPCRA, 42 U.S.C. § 11045, and Section 109(c) of CERCLA, 42 U.S.C. § 9606(c).

2. Venue is proper in the United States District Court for the District of Wyoming pursuant to Section 113(b) of the CAA, 42 U.S.C. § 7413(b), and 28 U.S.C. §§ 1391(b) and (c), and 1395(a). The Sinclair Refineries consent to the personal jurisdiction of this Court and waive any objections to venue in this District.

3. Notice of the commencement of this action has been given to the State of Oklahoma and the State of Wyoming, in accordance with Section 113(a)(1) of the Clean Air Act, 42 U.S.C. § 7413(a)(1), and as required by Section 113(b) of the CAA, 42 U.S.C. § 7413(b).

II. APPLICABILITY AND BINDING EFFECT

4. The provisions of the Consent Decree will apply to the Sinclair Refineries. The provisions of the Consent Decree will be binding upon the United States, the Co-Plaintiffs, and the Sinclair Refineries, including their officers, agents, servants, employees in their capacity as such, and all other persons and entities as provided for by Fed. R. Civ. P. 65(d).

5. Subject to Paragraph 340 (Public Notice and Comment), the Parties agree not to contest the validity of the Consent Decree in any subsequent proceeding to implement or enforce its terms.

6. Effective from the Date of Entry of the Consent Decree until its termination, each of the Sinclair Refineries agrees that they are covered by this Consent Decree. Effective from

the Date of Lodging of the Consent Decree, the Sinclair Refineries will give written notice of the Consent Decree to any successors in interest prior to the transfer of ownership or operation of any portion of their respective refineries and will provide a copy of the Consent Decree to any successor in interest. The relevant Sinclair Refinery will notify the United States and the Applicable Co-Plaintiff in accordance with the notice provisions set forth in Paragraph 341 (Notice), of any successor in interest at least thirty (30) days prior to any such transfer.

7. Each of the Sinclair Refineries will condition any transfer, in whole or in part, of ownership of, operation of, or other interest (exclusive of any non-controlling non operational shareholder interest) in, its refinery upon the execution by the transferee of a modification to the Consent Decree which makes the terms and conditions of the Consent Decree that are applicable to the transferee. As soon as possible prior to the transfer, the relevant Sinclair Refinery will notify the United States and the Applicable Co-Plaintiff of the proposed transfer and of the specific Consent Decree provisions that the transferee is assuming. Simultaneously, the relevant Sinclair Refinery will provide a certification from the transferee that the transferee has the financial and technical ability to assume the obligations and liabilities under this Consent Decree that are related to the transfer. By no later than sixty (60) days after the transferee executes a document agreeing to substitute itself for the relevant Sinclair Refinery for all terms and conditions of this Consent Decree, the United States, the Applicable Co-Plaintiff, the relevant Sinclair Refinery, and the transferee will jointly file with the Court a motion requesting the Court to substitute the transferee as the Defendant for those terms and conditions of this Consent Decree that apply to the refinery that is being transferred. If the relevant Sinclair Refinery does not secure the agreement of the United States and the Applicable Co-Plaintiff to a Joint Motion within sixty (60) days, then the relevant Sinclair Refinery and the transferee may file a motion without the agreement of the United States and the Applicable Co-Plaintiff. The United States and the Applicable Co-Plaintiff thereafter may file an opposition to the motion. The transferring Sinclair Refinery will not be released from the obligations and liabilities of any provision of this Consent Decree unless and until the Court grants the motion substituting the transferee as the Defendant to those provisions.

8. Except as provided in Paragraph 7, each Sinclair Refinery will be solely responsible for ensuring that performance of the work required under this Consent Decree is

undertaken in accordance with the deadlines and requirements contained in this Consent Decree and any attachments hereto. Each Sinclair Refinery will provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that is retained to perform work required under Part V of this Consent Decree, upon execution of any contract relating to such work. No later than thirty (30) days after the Date of Entry of the Consent Decree, each Sinclair Refinery also will provide a copy of the applicable provisions of this Consent Decree to each consulting or contracting firm that it already has retained to perform the work required under Part V of this Consent Decree. Copies of the Consent Decree do not need to be supplied to firms who are retained to supply materials or equipment to satisfy requirements under this Consent Decree.

III. OBJECTIVES

9. It is the purpose of the Parties in this Consent Decree to further the objectives of the federal Clean Air Act, the Wyoming Environmental Quality Act, the Oklahoma Clean Air Act, and the rules and regulations promulgated thereunder.

IV. DEFINITIONS

10. Unless otherwise defined herein, terms used in the Consent Decree will have the meaning given to those terms in the Clean Air Act and the implementing regulations promulgated thereunder. The following terms used in the Consent Decree will be defined for purposes of the Consent Decree and the reports and documents submitted pursuant thereto as follows:

A. "Acid Gas" shall mean any gas that contains hydrogen sulfide and is generated at a refinery by the regeneration of an amine solution.

B. "Acid Gas Flaring" or "AG Flaring" shall mean the combustion of Acid Gas and/or Sour Water Stripper Gas in an AG Flaring Device.

C. "Acid Gas Flaring Device" or "AG Flaring Device" shall mean any device at the Sinclair Refineries that is used for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, except facilities in which gases are combusted to produce sulfur or sulfuric acid. The AG Flaring Devices currently in service at the Sinclair Refineries are identified in Appendix

A to the Consent Decree. To the extent that, during the duration of the Consent Decree, the Sinclair Refineries utilize AG Flaring Devices other than those specified in Appendix A for the purpose of combusting Acid Gas and/or Sour Water Stripper Gas, those AG Flaring Devices shall be covered under this Consent Decree.

D. "Acid Gas Flaring Incident" or "AG Flaring Incident" shall mean the continuous or intermittent combustion of Acid Gas and/or Sour Water Stripper Gas that results in the emission of sulfur dioxide equal to, or in excess of, five-hundred (500) pounds in any twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in a twenty-four (24) hour period and flaring continues into subsequent, contiguous, non-overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to or in excess of five-hundred (500) pounds of sulfur dioxide, then only one AG Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of flaring within the AG Flaring Incident.

E. "AMP" or "Alternative Monitoring Plan" shall mean a monitoring plan, upon approval by EPA, that the Sinclair Refineries may use in lieu of a regulatory monitoring requirement.

F. "Applicable Co-Plaintiff" shall mean the following states with respect to the following refineries:

Tulsa Refinery	State of Oklahoma through the ODEQ
Casper Refinery	State of Wyoming through the WDEQ
Sinclair Wyoming Refinery	State of Wyoming through the WDEQ

G. "Calendar quarter" shall mean the three month period ending on March 31st, June 30th, September 30th, and December 31st.

H. "Casper Refinery" shall mean the refinery owned and operated by SCRC in Casper, Wyoming.

I. "CEMS" shall mean continuous emissions monitoring system.

J. "CO" shall mean carbon monoxide.

K. "Combustion Units" shall mean the heaters and boilers at the Sinclair Refineries that are listed in Appendix B.

L. "Consent Decree" or "Decree" or "CD" shall mean this Consent Decree, including any and all appendices attached to the Consent Decree.

M. "Co-Plaintiffs" or "Plaintiff-Intervenors" shall mean ODEQ and the State of Wyoming on behalf of the WDEQ.

N. "Covered FCCUs" shall mean the following FCCU entities:

Sinclair Tulsa Refinery	Tulsa FCCU -- the FCCU owned and operated by STRC
Sinclair Casper Refinery	Casper FCCU -- the FCCU owned and operated by SCRC
Sinclair Wyoming Refinery	Sinclair Wyoming FCCU – the FCCU owned and operated by SWRC

O. "Current Generation Ultra-Low NOx Burners" shall mean those burners that are designed to achieve a NOx emission rate of 0.020 to 0.040 lb NOx/mmBTU (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.040 lb NOx/mmBTU (HHV).

P. "Date of Entry of the Consent Decree" or "Date of Entry" shall mean the date the Consent Decree is entered by the United States District Court for the District of Wyoming.

Q. "Date of Lodging of the Consent Decree" or "Date of Lodging" or "DOL" shall mean the date the Consent Decree is filed for lodging with the Clerk of the Court for the United States District Court for the District of Wyoming.

R. "Day" or "Days" as used herein shall mean a calendar day or days.

S. "FCCU" as used herein shall mean a fluidized catalytic cracking unit and its regenerator and associated CO boiler(s) (where present).

T. "Flaring Device" shall mean either an AG and/or an HC Flaring Device. The Flaring Devices that the Sinclair Refineries own and operate are identified in Appendix A.

U. "Fuel Oil" shall mean any liquid fossil fuel with a sulfur content of greater than 0.05% by weight.

V. "Hydrocarbon Flaring" or "HC Flaring" shall mean the combustion of refinery generated gases, except for Acid Gas and/or Sour Water Stripper Gas and/or Tail Gas, in a Hydrocarbon Flaring Device.

W. "Hydrocarbon Flaring Device" or "HC Flaring Device" shall mean a device at the Sinclair Refineries that is used to safely control (through combustion) any excess volume of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Off Gas and/or Tail Gas. The HC Flaring Devices currently in service at the Sinclair Refineries are identified in Appendix A to the Consent Decree. To the extent that, during the duration of the Consent Decree, the Sinclair Refineries utilize HC Flaring Devices other than those specified in Appendix A for the purpose of combusting any excess of a refinery-generated gas other than Acid Gas and/or Sour Water Stripper Gas, those HC Flaring Devices shall be covered under this Consent Decree.

X. "Hydrocarbon Flaring Incident" or "HC Flaring Incident" shall mean the continuous or intermittent combustion of refinery-generated gases, except for Acid Gas or Sour Water Stripper Gas or Tail Gas, that results in the emission of sulfur dioxide equal to, or greater than five-hundred (500) pounds in a twenty-four (24) hour period; provided, however, that if five-hundred (500) pounds or more of sulfur dioxide have been emitted in any twenty-four (24) hour period and flaring continues into subsequent, contiguous, non-overlapping twenty-four (24) hour period(s), each period of which results in emissions equal to or in excess of five-hundred (500) pounds of sulfur dioxide, then only one HC Flaring Incident shall have occurred. Subsequent, contiguous, non-overlapping periods are measured from the initial commencement of Flaring within the HC Flaring Incident.

Y. "Hydrotreater Outage" shall mean the period of time during which the operation of an FCCU is affected as a result of catalyst change out operations or shutdowns required by ASME pressure vessel requirements or state boiler codes, or as a result of Malfunction, that prevents the hydrotreater from effectively producing the quantity and quality of feed necessary to achieve established FCCU emission performance.

Z. "Low NOx Combustion Promoter" shall mean a catalyst that is added to an FCCU that minimizes NOx emissions while maintaining its effectiveness as a combustion promoter.

AA. "Malfunction" shall mean, as specified in 40 C.F.R. Part 60.2, "any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions."

BB. "Natural Gas Curtailment" shall mean a restriction imposed by a natural gas supplier limiting any Sinclair Refinery's ability to obtain or use natural gas.

CC. "Next Generation Ultra-Low NOx Burners" or "Next Generation ULNBs" shall mean those burners that are designed to achieve a NOx emission rate of less than or equal to 0.020 lb NOx/mmBTU (HHV) when firing natural gas at 3% stack oxygen at full design load without air preheat, even if upon installation actual emissions exceed 0.020 lb NOx/mmBTU (HHV).

DD. "NOx" shall mean nitrogen oxides.

EE. "NOx Control System" shall mean LO TOx systems, NOx additives, SCR or other substantially equivalent technology.

FF. "NOx Additives" shall mean Low NOx Combustion Promoters and NOx Reducing Catalyst Additives.

GG. "NOx Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce NOx emissions through reduction or controlled oxidation of intermediates.

HH. "ODEQ" shall mean the Oklahoma Department of Environmental Quality and any successor departments or agencies of the State of Oklahoma.

II. "Paragraph" shall mean a portion of this Consent Decree identified by an arabic numeral.

JJ. "Parties" shall mean the United States, the Co-Plaintiffs, and the Sinclair Refineries.

KK. "PEMS" shall mean predictive emissions monitoring systems developed in accordance with Appendix E to this Consent Decree.

LL. "PM" shall mean particulate matter as measured by 40 CFR Part 60, Appendix A, Method 5B or 5F.

MM. "Root Cause" shall mean the primary cause(s) of an AG Flaring Incident(s), Hydrocarbon Flaring Incident(s), or a Tail Gas Incident(s) as determined through a process of investigation.

NN. "Root Cause Analysis" shall mean a formal investigation that identifies the Root Cause and all significant contributing causes of an Acid Gas Flaring Incident, Tail Gas Incident, or Hydrocarbon Flaring Incident. The requirements for a Root Cause Analysis are set forth in Sections V.J. and K. of this Consent Decree.

OO. "Scheduled Turnaround" shall mean the shutdown of any emission unit or control equipment that is scheduled at least six months in advance of the shutdown and the purpose of such shutdown is to (1) perform general equipment cleaning and repairs due to normal equipment wear and tear; (2) perform required equipment tests and internal inspections; (3) install any unit or equipment modifications/additions, or make provisions for a future modification or addition; and/or (4) perform normal end of run catalyst changeouts or refurbishments.

PP. "Sinclair Refinery(ies)" shall mean the Sinclair Tulsa Refining Company, Sinclair Wyoming Refining Company and/or Sinclair Casper Refining Company and their successors and assigns.

QQ. "Selective Catalytic Reduction" or "SCR" shall mean an air pollution control device consisting of ammonia injection and a catalyst bed to selectively catalyze the reduction of NOx with ammonia to nitrogen and water.

RR. "7-day rolling average" and "365-day rolling average" shall mean the average emission rate during the preceding 7 or 365 days (as applicable) that the emission unit was operating, calculated on a daily basis and commencing on the 7th or 365th (as applicable) day following the date on which such emission rate is effective under this Consent Decree.

SS. "Selective Noncatalytic Reduction" or "SNCR" shall mean an air pollution control device consisting of a reactant injection system using ammonia or urea to selectively reduce NOx to nitrogen and water and may include an enhanced reactant such as hydrogen.

TT. "Sinclair Wyoming Refinery" shall mean the refinery owned and operated by SWRC in Sinclair, Wyoming.

UU. "Shutdown," as specified in 40 C.F.R. Section 60.2, shall mean the cessation of operation of an affected facility for any purpose.

VV. "Sour Water Stripper Gas" or "SWS Gas" shall mean the gas produced by the process of stripping refinery sour water.

WW. "SO_2" shall mean sulfur dioxide.

XX. "SO_2 Reducing Catalyst Additive" shall mean a catalyst additive that is introduced to an FCCU to reduce SO_2 emissions by reduction and adsorption.

YY. "Startup", as specified in 40 C.F.R. Section 60.2, shall mean the setting in operation of an affected facility for any purpose.

ZZ. "Sulfur Recovery Plant" or "SRP" shall mean a process unit that recovers sulfur from hydrogen sulfide by a vapor phase catalytic reaction of sulfur dioxide and hydrogen sulfide.

AAA. "Sulfur Recovery Unit" or "SRU" shall mean a single component of a Sulfur Recovery Plant, commonly referred to as a Claus train.

BBB. "Tail Gas" shall mean exhaust gas from the Claus trains and the tail gas unit ("TGU") section of the SRP.

CCC. "Tail Gas Incident" shall mean, for the purpose of this Consent Decree, combustion of Tail Gas that either is:

(1) Combusted in a flare and results in 500 pounds or more of SO_2 emissions in any twenty-four (24) hour period; or

(2) Combusted in a thermal incinerator and results in excess emissions of 500 pounds or more of SO_2 emissions in any twenty-four (24) hour period. Only those time periods which are in excess of a SO_2 concentration of 250 ppm (rolling twelve-hour average) shall be used to determine the amount of excess SO_2 emissions from the incinerator.

DDD. "Tail Gas Unit" or "TGU" shall mean a control system utilizing a technology for controlling emissions of sulfur compounds from a Sulfur Recovery Plant.

EEE. "Torch Oil" shall mean FCCU feedstock or cycle oils that are combusted in the FCCU regenerator to assist in starting up or restarting the FCCU, to allow hot standby of the FCCU, or to maintain regenerator heat balance in the FCCU.

FFF. "Tulsa Refinery" shall mean the refinery owned and operated by STRC in Tulsa, Oklahoma.

GGG. "Upstream Process Units" shall mean all amine contactors, amine regenerators, and sour water strippers at the Sinclair Refineries, as well as all process units that produce gaseous or aqueous waste streams that are processed at amine contactors, amine scrubbers, or sour water strippers.

HHH. "WDEQ" shall mean the Wyoming Department of Environmental Quality and any successor departments or agencies of the State of Wyoming.

III. "Wet Gas Scrubber" shall mean a system for treating a gas stream to remove SO_2 and PM that consists of vessels of sufficient size that provide sufficient contact time

with a caustic assisted scrubbing liquor in a manner that provides sufficient efficiency such that emissions limits required by this Consent Decree can be met all times.

JJJ. "Refinery MACT" shall mean the regulatory program set forth at 40 C.F.R. § 63.640.

V. AFFIRMATIVE RELIEF/ENVIRONMENTAL PROJECTS

A. NOx Emissions Reductions from FCCUs.

Each of the Sinclair Refineries shall implement a program to reduce NOx emissions from the Covered FCCUs, as specified in this Section V.A., incorporate lower NOx emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of CEMs.

11. NOx Emissions Control for the Tulsa FCCU.

a. NOx Control System. STRC currently intends to control emissions from the Tulsa FCCU through the installation and operation of a NOx Control System.

b. Final NOx Limits. By no later than December 31, 2009, STRC shall comply with NOx emission limits of 20 ppmvd at 0% O_2 on a 365-day rolling average basis and 40 ppmvd at 0% O_2 on a 7-day rolling average basis at the Tulsa FCCU. For purposes of clarity, the first 365-day compliance demonstration date shall be December 31, 2010

12. NOx Emissions Control for the Sinclair FCCU.

a. NOx Control System. SWRC currently intends to control emissions from the Sinclair FCCU through the installation of hydrotreater technology and the use of NOx Additives.

b. NOx Limits. By no later than March 31, 2010, SWRC shall comply with NOx emission limits of 40 ppmvd at 0% O_2 on a 365-day rolling average basis and 80 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair FCCU. For purposes of clarity, the first 365-day compliance date shall be March 31, 2011.

13. NOx Emissions Control for the Casper FCCU.

a. NOx Control System. SCRC currently intends to control emissions from the Casper FCCU through the installation of hydrotreater technology and use of NOx Additives.

b. Final NOx Limits. By no later than December 31, 2009, SCRC shall comply with NOx emission limits of 50 ppmvd at 0% O_2 on a 365-day rolling average basis and 100 ppmvd at 0% O_2 on a 7-day rolling average basis at the Casper FCCU. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

14. Alternate NOx Emission Limits for Casper and Sinclair FCCUs.

a. In lieu of the emissions limits in paragraphs 12(b) and 13(b), the SWRC and SCRC may accept emission limits of 20 ppmvd at 0% O_2 on a 365-day rolling average basis 40 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair and/or Casper FCCUs to be achieved by December 31, 2012.

b. If either SCRC or SWRC accepts the alternate NOx emission limit set forth in Paragraph 14(a), the relevant Sinclair Refining Company shall give notice to EPA and Wyoming of its acceptance of such limits no later than June 30, 2009.

15. NOx emissions during periods of startup, shutdown, or Malfunction of an FCCU, or during periods of Malfunction of the relevant FCCU's NOx Control System, will not be used in determining compliance with the 7-day average NOx emission limits established pursuant to Paragraphs 11-14, provided that during such periods the Sinclair Refineries implement good air pollution control practices to minimize NOx emissions. Nothing in this Paragraph shall be construed to relieve the Sinclair Refining Companies of any obligation under any federal or state law, regulation, or permit to report emissions during periods of startup, shutdown, or Malfunction, or to document the occurrence and/or cause of a startup, shutdown, or Malfunction event.

16. Demonstrating Compliance with FCCU NOx Emission Limits. Beginning no later than the dates set forth below for each of the following FCCUs, the Sinclair Refining Companies will use NOx and O_2 CEMS to monitor performance of the FCCU.

FCCU	CEMS
Tulsa	December 31, 2009
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective NOx emission limits established pursuant to this Section V.A. of this Consent Decree. Upon reasonable demand, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refining Companies will install, certify, calibrate, maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. Unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the Sinclair Refineries must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refining Companies must also conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

17. Reserved.

18. Reserved.

B. SO_2 Emissions Reductions from FCCUs.

The Sinclair Refining Companies will implement a program to reduce SO_2 emissions from the Covered FCCUs, as specified in this Section V.B., below, incorporate lower SO_2 emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of CEMs.

19. Installation and Operation of Wet Gas Scrubber at the Tulsa FCCU. By no later than December 31, 2009, STRC will complete installation and begin operation of a Wet Gas Scrubber ("WGS") at the Tulsa FCCU. Also on December 31, 2009, STRC will comply with the SO_2 concentration limit of 25 ppmvd at the Tulsa FCCU on a 365-day rolling average basis and 50 ppmvd on a 7-day rolling average basis, each corrected to 0% O_2. For purposes of clarity, the first 365-day compliance date shall be December 31, 2010.

20. SO_2 Control System at the Sinclair FCCU.

a. SWRC presently intends to control SO_2 emissions from the Sinclair FCCU through the installation and operation of a high pressure hydrotreater and SO_2 Reducing Catalyst Additives.

b. Final SO_2 Limits. By no later than December 31, 2009, SWRC shall comply with SO_2 emission limits of 25 ppmvd at 0% O_2 on a 365-day rolling average basis and 50 ppmvd at 0% O_2 on a 7-day rolling average basis at the Sinclair FCCU.

21. SO_2 Control System at the Casper FCCU.

a. SCRC presently intends to control SO_2 emissions from the Casper FCCU through the installation and operation of a high pressure hydrotreater and/or SO_2 Reducing Catalyst Additives.

b. Final SO_2 Limits. By no later than December 31, 2009, SCRC shall comply with SO_2 emission limits of 50 ppmvd at 0% O_2 on a 365-day rolling average basis and 100 ppmvd at 0% O_2 on a 7-day rolling average basis at the Casper FCCU.

22. SO_2 emissions during periods of startup, shutdown, or Malfunction of an FCCU controlled by catalyst additives, or during periods of Malfunction of an FCCU controlled by a WGS, or during periods of Malfunction of a WGS or SO_2 Reducing Catalyst Additive system will not be used in determining compliance with the 7-day average SO_2 emission limits established pursuant to Paragraphs 19-21, provided that during such periods the Sinclair Refineries implement good air pollution control practices to minimize SO_2 emissions.

23. Demonstrating Compliance with FCCU SO_2 Emission Limits. Beginning no later than the dates set forth below for each of the following FCCUs, the Sinclair Refineries will use SO_2 and O_2 CEMS to monitor performance of the FCCU.

FCCU	CEMS
Tulsa	December 31, 2009
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective SO_2 emission limits established pursuant to this Section V.B. Upon reasonable request from EPA, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refineries will install, certify, calibrate, maintain, and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. Unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the Sinclair Refineries must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refineries must also conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

24. Hydrotreater Outages. For the following FCCUs, by the following dates, the Sinclair Refineries will submit to EPA for approval, with a copy to the Applicable Co-Plaintiff, a plan for the operation of the FCCUs (including associated air pollution control equipment) during Hydrotreater Outages in a way that minimizes emissions as much as practicable.

FCCU	Date
Sinclair	Later of December 31, 2007 or 30 days after lodging
Casper	Later of December 31, 2007 or 30 days after lodging

The plan will, at a minimum, consider the use of low sulfur feed, storage of hydrotreated feed, and an increase in additive addition rate. The 7-day average SO_2 emission limits established pursuant to this Consent Decree at the Sinclair FCCU and the Casper FCCU will not apply during periods of FCCU feed Hydrotreater Outages provided that SWRC and SCRC are in compliance with the hydrotreater outage plan and are maintaining and operating their FCCUs in a manner consistent with good air pollution control practices.

C. PM Emissions Reductions from FCCUs.

25. The Sinclair Refineries will implement a program to reduce PM emissions from the Covered FCCUs, as specified in this Section V.C., incorporate lower PM emission limits into federally-enforceable permits and demonstrate future compliance with such limits through the use of PM testing.

26. PM Emission Limits for the Tulsa FCCU. STRC will design the wet gas scrubber at the Tulsa FCCU to achieve an emission limit of no greater than 0.5 pound PM per 1000 pounds of coke burned on a 3 hour average basis. By no later than December 31, 2009, STRC will begin to comply with an emission limit of 1.0 pound PM per 1000 pounds of coke burned on a 3-hour average basis at the Tulsa FCCU, as determined by the testing protocol in Paragraph 30.

27. PM Emission Limits for the Sinclair and Casper FCCUs. Consistent with the NSPS regulations at 40 C.F.R., Part 60, Subpart J, SWRC and SCRC shall comply with an emission limit of 1.0 pounds of PM per 1000 pounds of coke burned for the FCCUs listed below by the dates listed below:

FCCU	Date
Sinclair	December 31, 2009
Casper	Date of Entry

28. NSR Emission Limits for PM for the Tulsa, Sinclair and Casper FCCUs. At any time during the term of the Consent Decree, any of the Sinclair Refineries may accept a Final PM Limit of 0.5 pounds of PM per 1000 pounds of coke burned on a 3-hour average basis. For any of the Sinclair Refineries that accept such a limitation, liability for potential NSR violations

for PM emissions from the relevant FCCU shall be resolved pursuant to Paragraph 316, provided that such limits are incorporated into an appropriate permit under Paragraph 180-181.

29. PM emissions during periods of startup, shutdown or Malfunction of the FCCU, or during periods of Malfunction of a wet gas scrubber or ESP will not be used in determining compliance with the 3-hour average emission limits set forth in this Section V.C., provided that the Sinclair Refinery undergoing startup, shutdown or Malfunction implements good air pollution control practices to minimize PM emissions during such periods.

30. Demonstrating Compliance with PM Emission Limits Set Forth in Section V.C. and V.E. The Sinclair Refineries will follow the test methods specified in 40 C.F.R. § 60.106(b)(2) to measure PM emissions from the FCCUs. The Sinclair Refineries will conduct the first test no later than six (6) months after the PM limit becomes effective at an FCCU. The Sinclair Refineries will conduct annual tests at each FCCU no later than October 31st of each year and will submit the results in the first semi-annual report due under Part IX that is at least three (3) months after the test. Upon demonstrating through at least three (3) annual tests that the PM limits are not being exceeded at a particular FCCU, each Sinclair Refinery may request EPA approval to conduct tests less frequently than annually at that FCCU.

D. CO Emissions Reductions from FCCUs

31. CO Emissions Limits for the FCCUs. By no later than the following dates for the following FCCUs, the Sinclair Refineries will comply with the following CO emission limits:

FCCU	500 ppmvd 1-hour average at 0% oxygen
Tulsa	Date of Entry
Sinclair	Date of Entry
Casper	Date of Entry

32. NSR Emission Limits for CO for FCCUs. At any time during the term of the Consent Decree, any of the Sinclair Refineries may accept a Final CO Limit of 100 ppmvd on a 365-day rolling average basis at 0% O_2 for its FCCU. For any of the Sinclair Refineries that

accept such a limitation, liability for potential NSR violations for CO emissions from the relevant FCCU shall be resolved pursuant to Paragraph 317, provided that such limits are incorporated into an appropriate permit under Paragraph 180-181.

33. CO emissions during periods of startup, shutdown or Malfunction of the FCCU will not be used in determining compliance with the emission limits of 500 ppmvd CO at 0% O_2 on a 1-hour average basis, provided that the Sinclair Refinery undergoing startup, shutdown or Malfunction implements good air pollution control practices to minimize CO emissions during such periods.

34. Demonstrating Compliance with CO Emission Limits. Beginning no later than the dates set forth below for each FCCU, the Sinclair Refineries will use CO and O_2 CEMS to monitor performance of the FCCU:

FCCU	CEMS
Tulsa	Later of December 31, 2007 or Date of Entry
Sinclair	Date of Entry
Casper	Date of Entry

The CEMS will be used to demonstrate compliance with the respective CO emission limits established pursuant to this Section V.D. Upon reasonable request by EPA, the Sinclair Refineries will make CEMS data available to EPA and the Applicable Co-Plaintiff as soon as practicable. The Sinclair Refineries will install, certify, calibrate, maintain and operate all CEMS required by this Paragraph in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B. For the Tulsa Refinery only, unless Appendix F is otherwise required by the NSPS, state law or regulation, or a permit or approval, in lieu of the requirements of 40 C.F.R. Part 60, Appendix F §§ 5.1.1, 5.1.3 and 5.1.4, the STRC must conduct either a Relative Accuracy Audit ("RAA") or a Relative Accuracy Test Audit ("RATA") on each CEMS at least once every three (3) years. The Sinclair Refineries must also

conduct Cylinder Gas Audits ("CGA") each calendar quarter during which a RAA or a RATA is not performed.

E. NSPS Applicability of FCCU Catalyst Regenerators.

35. The following FCCU catalyst regenerators will be "affected facilities," as that term is used in the Standards of Performance for New Stationary Sources ("NSPS"), 40 C.F.R. Part 60, and will be subject to and comply with the requirements of NSPS Subparts A and J for each of the following pollutants by the following dates:

	SO_2	PM	CO
Tulsa	December 31, 2009	December 31, 2009	Later of 12/31/2007 or Date of Entry
Sinclair	December 31, 2009	December 31, 2009	Date of Entry
Casper	December 31, 2009	Date of Entry	Date of Entry

36. Reserved.

37. Opacity Monitoring at the FCCUs. By no later than the following dates, the Sinclair Refineries will install and operate a Continuous Opacity Monitoring System ("COMS") to monitor opacity at each of the following FCCUs:

FCCU	COMS
Sinclair	Date of Entry
Casper	Date of Entry
Tulsa	Date of Entry

The Sinclair Refineries will install, certify, calibrate, maintain and operate all COMS required by this Consent Decree in accordance with 40 C.F.R §§ 60.11, 60.13 and Part 60 Appendix A, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

38. As an alternative to the requirement to install and or operate a COMS under Paragraph 37, the Sinclair Refineries may request from EPA an AMP to demonstrate compliance with the NSPS opacity limits at 40 C.F.R. § 60.105(a)(1) for those FCCUs which have wet gas scrubbers. If approved by EPA, after an opportunity for consultation with the Applicable Co-

Plaintiff, the Sinclair Refineries may utilize the AMP in lieu of a COMS. If the Sinclair Refineries seek to rely on an AMP previously approved by EPA, EPA shall not unreasonably withhold approval of the Sinclair Refineries' use of such AMP.

39. For FCCU Catalyst Regenerators that become affected facilities under NSPS Subpart J pursuant to Paragraph 35, entry of this Consent Decree and compliance with the relevant monitoring requirements of this Consent Decree for FCCUs will satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

F. NOx Emissions Reductions from Combustion Units

40. The Sinclair Refineries will implement a program to reduce and monitor NOx emissions from the Combustion Units in Appendix B through the implementation of the provisions of this Section V.F.

41. Installation of Qualifying Controls for NOx Emissions from Combustion Units. The Sinclair Refineries will select one or any combination of the following "Qualifying Controls" to satisfy the requirements of Paragraphs 42, 45, and 46:

(a) SCR or SNCR;

(b) Current Generation or Next Generation Ultra-Low NOx Burners;

(c) Other technologies that the Sinclair Refineries demonstrate to EPA's satisfaction will reduce NOx emissions to 0.040 lbs per mmBTU or lower; or

(d) Permanent shutdown of a Combustion Unit with surrender of its operating permit; provided however, that to the extent that the emissions reductions resulting from the permanent shutdown are used to satisfy the requirements of Paragraphs 42, 45 and 46, those reductions may not be used as reductions for the construction of new units or the modification of existing units permitted collectively as a single project with the shutdown, notwithstanding the provisions of Paragraph 192(d).

42. On or before December 31, 2010, the Sinclair Refineries will use Qualifying Controls to reduce NOx emissions from the Combustion Units listed in Appendix B by at least 838 tons per year, so as to satisfy the following inequality:

$$\sum_{i=1}^{n} [(E_{actual})i - (E_{allowable})i] \geq 838 \text{ tons of NOx per year}$$

Where:

$(E_{allowable})i$ = [(The permitted allowable pounds of NOx per million BTU for Combustion Unit i, or, the requested portion of the permitted reduction pursuant to Paragraph 192(c))/(2000 pounds per ton)] x [(the lower of permitted or maximum heat input rate capacity in million BTU per hour for Combustion Unit i) x (the lower of 8760 or permitted hours per year)];

$(E_{actual})i$ = The tons of NOx per year prior actual emissions during the refinery baseline years (unless prior actual emissions exceed allowable emissions, then use allowable) as shown in Appendix B for each Combustion Unit i listed in Appendix B; and

n = The number of Combustion Units with Qualifying Controls from those listed in Appendix B that are selected by the Sinclair Refineries to satisfy the requirements of the equation set forth in this Paragraph.

For purposes of this Paragraph and for demonstrating compliance with this Section V.F., "permitted allowable" in the term $(E_{allowable})i$ above, shall be the NOx emission limit for each Combustion Unit which is the least of the following: (i) the NOx emission limit, in pounds per MMBTU at HHV (as a 365-day rolling average if based on CEMS, or as a 3-hour average if based on stack tests) based upon any existing federally enforceable permit condition in a permit that meets the requirements Paragraph 181; or (ii) the NOx emission limit, in pounds per MMBTU at HHV, reflected in any permit application for a federally enforceable permit that meets the requirements of Paragraph 181 that is submitted by the Sinclair Refineries for such Combustion Unit prior to December 31, 2008 (for compliance with Paragraph 45) or December 31, 2010 (for compliance with Paragraph 42). In the event the Sinclair Refineries identify a NOx emission limit based on a limit then reflected in a pending permit application, they shall not withdraw such application nor may they seek to modify that application to increase the NOx emission limit reflected in such application without prior EPA approval.

43. Appendix B. Appendix B to this Decree provides the following information for the Combustion Units:

(a) The maximum physical heat input capacity in mmBTU/hr (HHV);

(b) The allowable heat input capacity in mmBTU/hr (HHV), if different from the maximum physical heat input capacity;

(c) The baseline emissions rate for the agreed-upon baseline calendar years in lb/mmBTU (HHV) and tons per year;

(d) The type of data used to derive the emissions estimate (*i.e.*, emission factor, stack test, or CEMS data); and

(e) The utilization rate in annual average mmBTU/hr (HHV) for the agreed upon baseline calendar years.

44. NOx Control Plan. Appendix C sets forth the combustion units that the Sinclair Refineries currently intend to control to achieve the NOx emission reductions required by this Section. The Sinclair Refineries will submit a detailed NOx control plan ("NOx Control Plan") to EPA for review and comment by no later than Date of Entry, with annual updates (covering the prior calendar year) on March 31, 2009 and on March 31 of each year thereafter until termination of the Consent Decree. Copies of the NOx Control Plans will be submitted to the Applicable Co-Plaintiff. The NOx Control Plan and its updates will describe the achieved and anticipated progress of the NOx emissions reductions program for the Combustion Units and will contain the following information for each Combustion Unit that the Sinclair Refineries plan to use to satisfy the requirements of Paragraphs 42, 45 and/or 46:

(a) All of the information in Appendix B;

(b) Identification of the type of Qualifying Controls installed or planned with date installed or planned (including identification of the Combustion Units to be permanently shut down);

(c) To the extent limits exist or are planned, the allowable NOx emission rates (in lbs/mmBTU (HHV), with averaging period) and allowable heat input rate (in mmBTU/hr (HHV)) obtained or planned with dates obtained or planned;

(d) The results of emissions tests, and annual average CEMS or PEMs data (in ppmvd at 3% O_2, lbs/mmBTU) conducted pursuant to Paragraph 48; and

(e) The amount in tons per year applied or to be applied toward satisfying Paragraph 42.

The Control Plan required by this Paragraph will be for informational purposes only and may contain estimates. They will not be used to develop permit requirements or other operating restrictions. The Sinclair Refineries may change any projections, plans, or information that is included in the Control Plan or updates. Nothing in this Paragraph will affect any requirements for the development or submission of a NOx control plan pursuant to otherwise applicable state or local law.

45. By December 31, 2008, the Sinclair Refineries will install sufficient Qualifying Controls and have applied for emission limits from the appropriate permitting authority sufficient to achieve 80% of the NOx emission reductions required by Paragraph 42. By no later than March 31, 2009, the Sinclair Refineries will provide EPA and the Applicable Co-Plaintiff with a report demonstrating compliance with the requirements of this Paragraph.

46. By no later than December 31, 2010, Combustion Units with Qualifying Controls will represent at least 30% of the total maximum heat input capacity or, if less, the allowable heat input capacity, as shown in Appendix B, of all of the Combustion Units located at the Sinclair Tulsa and the Sinclair Wyoming Refineries, which shall include 581 Crude Heater Number 2 at the Sinclair Wyoming Refinery. The SCRC shall install Qualifying Controls on the Casper Refinery Number 5 Crude Heater and F202 Feed Heater (FCC) by December 31, 2008. Any Qualifying Controls can be used to satisfy this requirement, regardless of when the Qualifying Controls were installed.

47. By no later than six months after Date of Entry, the STRC shall submit an application to amend the operating permit at Tulsa to permanently shut down the CRU Splitter Reboiler.

48. Beginning no later than one hundred eighty (180) days after installing Qualifying Controls on and commencing operation of a Combustion Unit that will be used to satisfy the requirements of Paragraphs 42 and 45, the Sinclair Refineries will monitor the Combustion Units as follows:

(a) For Combustion Units with a maximum physical capacity greater than 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS;

(b) For Combustion Units with a maximum physical capacity greater than 100 mmBTU/hr (HHV) but less than or equal to 150 mmBTU/hr (HHV), install or continue to operate a NOx CEMS, or monitor NOx emissions with a PEMS developed and operated pursuant to the requirements of Appendix E of this Consent Decree;

(c) For Combustion Units with a maximum physical capacity of less than or equal to 100 mmBTU/hr (HHV), conduct an initial performance test and any periodic tests that may be required by EPA or by the applicable State or local permitting authority under other applicable regulatory authority. The results of the initial performance testing will be reported to EPA and the Applicable Co-Plaintiff; and

(d) For purposes of demonstrating compliance with paragraph 42, if a Sinclair Refinery installs Qualifying Controls on one or more Combustion Units that exhausts through a common stack, that Sinclair Refinery shall apportion the reduction in monitored emissions at the common stack to each such unit based on heat input of each unit, in accordance with an alternative monitoring plan submitted to EPA and the applicable state.

The Sinclair Refineries will use Method 7E or an EPA-approved alternative test method, in conjunction with Method 19, to conduct initial performance testing for NOx emissions required by subparagraph (c) of this Paragraph. Monitoring with a PEMS required by this Paragraph will be conducted in accordance with the requirements of Appendix E. Units with Qualifying Controls installed before the Date of Entry that are subject to this Paragraph will comply with this Paragraph by no later than the latter of 6 months after the Date of Entry or December 31, 2007.

49. The Sinclair Refineries will certify, calibrate, maintain and operate the NOx CEMS required by Paragraph 48 in accordance with the provisions of 40 C.F.R. § 60.13 that are applicable to CEMS (excluding those provisions applicable only to Continuous Opacity Monitoring Systems) and Part 60 Appendices A and F, and the applicable performance specification test of 40 C.F.R. Part 60 Appendix B.

50. The requirements of this Section V.F. do not exempt the Sinclair Refineries from complying with any and all federal and state requirements that may require technology, equipment, monitoring or other upgrades based on actions or activities occurring after the Date

of Lodging of this Consent Decree, or based upon new or modified regulatory, statutory or permit requirements.

51. The Sinclair Refineries will retain all records required to support their reporting requirements under this Section V.F. until termination of the Consent Decree. Upon reasonable request by EPA, the Sinclair Refineries will submit such records to EPA and the Applicable Co-Plaintiff as soon as practical.

52. If any of the Sinclair Refineries transfer ownership of any refinery before achieving all of the NOx reductions required by Paragraph 42, the transferring refinery will notify EPA and the Applicable Co-Plaintiff of that transfer and will submit an allocation to EPA and the Applicable Co-Plaintiff for that refinery's share of NOx reduction requirements of Paragraph 42 that will apply individually to the transferred refinery after such transfer.

G. SO_2 Emissions Reductions from and NSPS Applicability to Heaters and Boilers.

53. The Sinclair Refineries shall undertake measures to reduce SO_2 emissions from refinery heaters and boilers and other specified equipment by restricting H_2S in refinery fuel gas and by agreeing not to burn Fuel Oil except as specifically permitted under the provisions set forth herein.

54. NSPS Applicability to Heaters and Boilers and Other Specified Equipment.

a. Upon the Date of Entry, all heaters, boilers and fuel gas combustion devices at the Tulsa, Sinclair Wyoming, and Casper Refineries shall be affected facilities under NSPS Subpart J and shall comply with the applicable requirements of NSPS Subparts A and J for fuel gas combustion devices, except for those heaters and boilers listed in Appendix D, which shall be affected facilities and shall be subject to and comply with the applicable requirements of NSPS Subparts A and J for fuel gas combustion devices by the dates listed in Appendix D.

b. Reserved.

c. Where Appendix D specifies an alternative monitoring plan ("AMP") submittal date (rather than a final NSPS Subpart J compliance date), the Sinclair Refineries shall submit to EPA and the Applicable Co-Plaintiff a timely and complete AMP application. Such an

AMP may be based on alternative monitoring for H_2S or SO_2. If an AMP is not approved, the Sinclair Refineries shall within ninety (90) days of the Sinclair Refineries receiving notice of such disapproval submit to EPA for approval, with a copy to the appropriate Co-Plaintiff, a plan and schedule that provide for compliance with the monitoring requirements of NSPS Subpart J as soon as practicable. Such plan may include a revised AMP application, physical or operational changes to the equipment, or additional or different monitoring.

d. For heaters and boilers that combust low-flow VOC streams from vents, pumpseals, and other sources, it is anticipated that some of the AMP applications will rely in part on calculating a weighted average H_2S concentration of all VOC and fuel gas streams that are burned in a single heater or boiler and demonstrating with alternative monitoring that either the SO_2 emissions from the heater or boiler will not exceed 20 ppm or that the weighted average H_2S concentration is not likely to exceed 162 ppm H_2S. EPA shall not reject an AMP solely due to the AMP's use of one of these approaches to demonstrating compliance with NSPS Subpart J.

e. For heaters, boilers and other equipment used as fuel gas combustion devices that become affected facilities under NSPS Subpart J pursuant to this Paragraph 54, entry of this Consent Decree and compliance with the relevant monitoring requirements of this Consent Decree shall satisfy the notice requirements of 40 C.F.R. § 60.7(a) and the initial performance test requirement of 40 C.F.R. § 60.8(a).

55. To the extent that the Sinclair Refineries seek to use an alternative monitoring method at a particular fuel gas combustion device to demonstrate compliance with the limits at 40 C.F.R. § 60.104(a)(1), the Sinclair Refineries may begin to use the method immediately upon submitting the application for approval to use the method, provided that the alternative method for which approval is being sought is the same as or is substantially similar to the method identified as the "Alternative Monitoring Plan for NSPS Subpart J Refinery Fuel Gas" attached to EPA's December 2, 1999, letter to Koch Refining Company LP.

56. Elimination/Reduction of Fuel Oil Burning.

a. Existing Combustion Devices. From the Date of Lodging of this Consent Decree, the Sinclair Refineries will not burn Fuel Oil in any existing combustion device at the

Covered Refineries except: (i) at the Sinclair Tulsa Refinery, during periods of Natural Gas Curtailment, Test Runs, or operator training; or (ii) at Sinclair Wyoming and Sinclair Casper Refineries, as set forth in Paragraph 57. Nothing in this prohibition limits the Sinclair Refineries' ability to burn Torch Oil in an FCCU regenerator to assist in starting, restarting, maintaining hot standby, or maintaining regenerator heat balance.

b. Combustion Devices Constructed After Lodging. After the Date of Lodging, the Sinclair Refineries will not construct any new combustion device that burns fuel oil unless the air pollution control equipment controlling the combustion device either (i) has an SO_2 control efficiency of 90% or greater; or (ii) achieves an SO_2 concentration of 20 ppm at 0% O_2 or less on a three-hour rolling average basis. Nothing in this Paragraph will exempt the Sinclair Refineries from securing all necessary permits before constructing a new combustion device.

57. Reduction of Fuel Oil Burning at the Sinclair and Casper Refineries.

a. Commencing on the Date of Entry or January 1, 2008, whichever is earlier, the SWRC will limit Fuel Oil burning at the Sinclair Wyoming Refinery such that total SO_2 emission resulting from fuel oil burning will be no greater than 200 tons per year on a 365 day rolling average basis. Commencing on December 31, 2010, the SWRC will limit Fuel Oil burning at the Sinclair Wyoming Refinery such that total SO_2 emissions resulting from fuel oil burning will be no greater than 55 tons per year on a 365 day rolling average basis.

b. Commencing on December 31, 2008, the SCRC will limit Fuel Oil burning at the Casper Refinery such that total SO_2 emission resulting from fuel oil burning will be no greater than 188 tons per year on a 365-day rolling average basis. Fuel Oil combusted during periods of Natural Gas Curtailment will not be counted in the 365-day rolling average.

c. Compliance with paragraphs a. and b. above will be determined for each refinery on a daily basis by the following the equation:

$$\sum_{i=1}^{n} [\,(DRFOi \times FODi \times (SCi/100) \times 2)/2000i] \leq \text{the limit in tons of } SO_2 \text{ per year}$$

Where:

DRFOi = the amount of fuel oil combusted at the refinery for day i in gallons per day;

FODi = the average density of fuel oil combusted at the refinery for day i in pounds per gallon;

SCi = the average sulfur content of the oil combusted at the refinery for day i in weight percent sulfur; and

n = the prior 365 calendar days.

In demonstrating compliance with this Paragraph, the SWRC and the SCRC shall measure and retain records of the following for each day on which fuel oil is combusted: amount of fuel oil combusted (weight and volume), density, sulfur content and method of determining the amount of fuel oil combusted.

58-65. Reserved.

H. Sulfur Recovery Plants

66. Description of Sulfur Recovery Plants. Claus Sulfur Recovery Plants ("SRPs") are owned and operated by the Sinclair Refineries.

a. Tulsa SRP: The SRP at the Sinclair Tulsa Refinery ("Tulsa SRP") consists of two 3-stage Claus trains each followed by a dedicated tail gas incinerator and caustic scrubber that serves as a tail gas treater.

b. Sinclair SRP: The SRP at the Sinclair Wyoming Refinery ("Sinclair SRP") consists of two 3-stage Claus trains. There is a common tail gas incinerator and caustic scrubber tail gas treater for both 3-stage Clause trains. SWRC currently is constructing a new Sulfur Complex consisting of two parallel trains, each train consisting of a 3-stage Claus unit, incinerator and amine based tail gas treater, scheduled to be installed by June 30, 2008. The new

sulfur complex and existing sulfur complex network is designed to allow the processing of rich amine streams generated throughout the refinery at any of the SRU/incineration/tail gas treater systems.

c. Casper SRP: The SRP at the Sinclair Casper Refinery ("Casper SRP") consists of one 3-stage Claus train with a tail gas incinerator and a caustic scrubber as the Tail Gas Unit ("TGU").

67. Sulfur Recovery Plants and NSPS Applicability.

a. Sinclair Tulsa SRP. The Sinclair Tulsa SRP, consisting of two Claus trains, is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

b. Sinclair Wyoming SRP. The Sinclair Wyoming SRP is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

c. Sinclair Casper SRP. The Sinclair Casper SRP is currently an "affected facility," as that term is used in 40 C.F.R. Part 60, Subparts A and J.

68. Sulfur Recovery Plants and NSPS Compliance. As of the Date of Entry, the Tulsa, Sinclair Wyoming, and Casper SRPs shall comply with all applicable provisions of NSPS set forth at 40 C.F.R. Part 60, Subparts A and J, including, but not limited to, the following:

a. Emission limit. The STRC, SWRC and SCRC shall, for all periods of operation of the SRPs, comply with 40 C.F.R. § 60.104(a)(2) at each SRP except during periods of Startup, Shutdown or Malfunction of the respective SRP, or during a Malfunction of a TGU serving as a control device for the SRP. For the purpose of determining compliance with the Sulfur Recovery Plant emission limits of 40 C.F.R. § 60.104(a)(2), the "Startup/Shutdown" provisions set forth in NSPS Subpart A shall apply to each SRP and not to the independent start-up or shutdown of a TGU serving as a control device for the SRP. However, the Malfunction exemption set forth in NSPS Subpart A shall apply to each SRP and to the TGU serving as the control device for the SRP.

b. Monitoring. The STRC, SWRC, and SCRC shall monitor all TGU emissions points (*i.e.*, stacks and incinerators) to the atmosphere for tail gas emissions and shall monitor and report excess emissions from each of these SRPs as required by 40 C.F.R. §§ 60.7(c), 60.13, and 60.105(a)(5), (6) or (7). During the life of this Consent Decree, the STRC, SWRC, and SCRC shall conduct emissions monitoring from these SRPs with CEMS at all of the emission points, unless an SO_2 alternative monitoring procedure has been approved by EPA, per 40 C.F.R. § 60.13(i), for any of the emission points. The requirement for continuous monitoring of the SRP emission points is not applicable to the Acid Gas Flaring Devices used to flare the Acid Gas or Sour Water Stripper Gas diverted from the SRPs.

69. Sulfur Pit Emissions. The SCRC and the SWRC shall continue to route all sulfur pit emissions at the Casper and Sinclair Refineries, respectively, so that they are eliminated, controlled, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart J limit for SO_2, 40 C.F.R. § 60.104(a)(2). By no later than six months after the Date of Entry, the STRC shall route all sulfur pit emissions at the Tulsa Refinery so that they are eliminated, controlled, or included and monitored as part of the SRP's emissions subject to the NSPS Subpart J limit for SO_2, 40 C.F.R. § 60.104(a)(2).

70. Preventive Maintenance and Operation Plans.

a. By no later than December 31, 2007 or 90 days after entry, the Sinclair Refineries shall submit to EPA and the appropriate Co-Plaintiff a summary of the plans, implemented or to be implemented, for the enhanced operation and maintenance of the Sinclair Refineries' SRPs, their associated TGUs, any supplemental control devices and the Upstream Process Units for each Refinery. This plan shall be termed a Preventive Maintenance and Operation Plan ("PMO Plan"). The PMO Plan shall be a compilation of the Sinclair Refineries' approach for exercising good air pollution control practices and for minimizing SO_2 emissions from sulfur processing and other production processes at these refineries. PMO Plans shall have as their goals the elimination of Acid Gas Flaring and the operation of SRPs between Scheduled Maintenance turnarounds with minimization of emissions. The PMO Plan shall include, but not be limited to, sulfur shedding procedures, startup and shutdown procedures of SRP's, control devices and Upstream Process Units, emergency procedures and schedules to coordinate

maintenance turnarounds of the SRP Claus trains and any control device to coincide with scheduled turnarounds of major Upstream Process Units. The Sinclair Refineries shall implement the PMO Plans at all times, including periods of Startup, Shutdown and Malfunction of its SRPs. Changes to a PMO Plan related to minimizing Acid Gas Flaring and/or SO_2 emissions shall be summarized and reported by the Sinclair Refineries to EPA and the appropriate Co-Plaintiff in the semi-annual report required under Part IX.

b. EPA, ODEQ or WDEQ do not, by their review of a PMO Plan and/or by their failure to comment on a PMO Plan, warrant or aver in any manner that any of the actions that the Sinclair Refineries may take pursuant to such PMO Plan will result in compliance with the provisions of the Clean Air Act or any other applicable federal, state, or local law or regulation. Notwithstanding the review by EPA or any state agency of a PMO Plan, the Sinclair Refineries shall remain solely responsible for compliance with the Clean Air Act and such other laws and regulations.

71-73. Reserved.

I. Flares and NSPS

74. Good Air Pollution Control Practices. On and after the Date of Entry, the Sinclair Refineries shall at all times and to the extent practicable, including during periods of startup, shutdown and/or Malfunction, implement good air pollution control practices to minimize emissions from their Flaring Devices consistent with and as required by 40 C.F.R. § 60.11(d). The Sinclair Refineries shall implement such good air pollution control practices to minimize Hydrocarbon Flaring Incidents by investigating, reporting and correcting all such incidents in accordance with the procedures in Paragraph 94.

75. Flaring Devices and NSPS Applicability: The Sinclair Refineries own and operate the Flaring Devices identified in Appendix A. By no later than Date of Entry, each such Flaring Device shall be an "affected facility" (as that term is used in NSPS, 40 C.F.R. Part 60) and shall comply with all applicable requirements of 40 C.F.R. Part 60, Subparts A and J, for fuel gas combustion devices used as emergency control devices for quick and safe release of combustible gases.

a. The SWRC and the SCRC shall meet the NSPS Subparts A and J requirements for each Flaring Device at the Sinclair Wyoming and Casper Refineries, respectively, by using one or any combination of the following methods:

(1) Design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device.

(2) Eliminate the routing of continuous or intermittent, routinely-generated refinery fuel gases to a Flaring Device and operate the Flaring Device such that it only receives process upset gases, fuel gas released as a result of relief valve leakage or gases released due to other emergency malfunctions; or

(3) Operate the Flaring Device as a fuel gas combustion device and comply with NSPS monitoring requirements by the use of a CEMS pursuant to 40 C.F.R. § 60.105(a)(4) or with a parametric monitoring system approved by EPA as an alternative monitoring system under 40 C.F.R. § 60.13(i).

The Parties recognize that periodic maintenance may be required for properly designed and operated flare gas recovery systems. The Sinclair Refineries shall take all reasonable measures to minimize emissions while such periodic maintenance is being performed. The Parties also recognize that under certain conditions, a flare gas recovery system may need to be bypassed in the event of an emergency or in order to ensure safe operation of refinery process. Nothing in this Consent Decree precludes the Sinclair Refineries from temporarily bypassing a flare gas recovery system under such circumstances.

b. By December 31, 2009, the STRC shall design, install, operate and maintain a flare gas recovery system to control continuous or routine combustion in the Flaring Device.

c. Within 180 days after bringing a Flaring Device into compliance with NSPS Subparts A and J, the Sinclair Refineries shall conduct a flare performance test pursuant to 40 C.F.R. §§ 60.8 and 60.18, or an EPA-approved equivalent method. In lieu of conducting the velocity test required in 40 C.F.R. § 60.18, the Sinclair Refineries may submit velocity calculations which demonstrate that the Flaring Device meets the performance specification required by 40 C.F.R. § 60.18. The Sinclair Refineries may utilize its demonstration of compliance with Refinery MACT I if such provides substantially equivalent assurance of NSPS

compliance, as may then be determined by EPA after an opportunity for consultation with the Appropriate Co-Plaintiff.

76. Compliance with the Emission Limit at 40 C.F.R. § 60.104(a)(1).

a. Continuous or Intermittent, Routinely-Generated Refinery Fuel Gases. For continuous or intermittent, routinely-generated refinery gases that are combusted in any Flaring Device, the Sinclair Refineries shall comply with the emission limit at 40 C.F.R. § 60.104(a)(1).

b. Non-Routinely Generated Gases. The combustion of gases generated by the Startup, Shutdown, or Malfunction of a refinery process unit or released to a Flaring Device as a result of relief valve leakage or other emergency malfunction are exempt from the requirement to comply with 40 C.F.R. § 60.104(a)(1).

J. Control of Acid Gas Flaring and Tail Gas Incidents

77. Past Acid Gas Flaring Analysis. By no later than six months after the Date of Entry, the Sinclair Refineries will provide a description of the causes of Acid Gas Flaring at each Refinery for each Acid Gas Flaring Incident that occurred from January 1, 2003 through the Date of Entry, including but not limited to:

(a) The date and time that the AG Flaring Incident started and ended (if available or reasonably determinable);

(b) An estimate of the quantity of sulfur dioxide emitted and the calculations used to determine that quantity (if available or reasonably determinable); and

(c) A description of the Root Cause and corrective actions, if any, that were taken to reduce the likelihood of a recurrence of such AG Flaring Incident (if available or reasonably determinable).

78. Future Acid Gas Flaring and Tail Gas Incidents: The Sinclair Refineries shall investigate the cause of future Acid Gas Flaring and Tail Gas Incidents under Paragraph 79 and take corrective action as set forth in Paragraph 80.

79. Investigation and Reporting. No later than forty-five (45) days following the end of an Acid Gas Flaring Incident occurring on and after the Date of Entry, the Sinclair Refineries shall submit to EPA and the appropriate Co-Plaintiff a Root Cause Analysis report that sets forth the following:

(a) The date and time that the Acid Gas Flaring Incident started and ended. To the extent that the Acid Gas Flaring Incident involved multiple releases either within a twenty-four (24) hour period or within subsequent, contiguous, non-overlapping twenty-four (24) hour periods, the Sinclair Refineries shall set forth the starting and ending dates and times of each release;

(b) An estimate of the quantity of sulfur dioxide that was emitted and the calculations that were used to determine that quantity;

(c) The steps, if any, that the Sinclair Refineries took to limit the duration and/or quantity of sulfur dioxide emissions associated with the Acid Gas Flaring Incident;

(d) A detailed analysis that sets forth the Root Cause and all significant contributing causes of that Acid Gas Flaring Incident, to the extent determinable;

(e) An analysis of the measures, if any, that are available to reduce the likelihood of a recurrence of an Acid Gas Flaring Incident resulting from the same Root Cause or significant contributing causes in the future. If two or more reasonable alternatives exist to address the Root Cause, the analysis shall discuss the alternatives, if any, that are available, the probable effectiveness and cost of the alternatives, and whether or not an outside consultant should be retained to assist in the analysis. Possible design, operation and maintenance changes shall be evaluated. If the Sinclair Refineries concludes that corrective action(s) is (are) required under Paragraph 80, the report shall include a description of the action(s) and, if not already completed, a schedule for its (their) implementation, including proposed commencement and completion dates. If the Sinclair Refineries conclude that corrective action is not required under Paragraph 80, the report shall explain the basis for that conclusion;

(f) A statement that: (i) specifically identifies each of the grounds for stipulated penalties in Paragraphs 86 and 87 of this Decree and describes whether or not the Acid Gas Flaring Incident falls under any of those grounds, provided, however, that the Sinclair Refineries may choose to submit with the Root Cause Analysis a payment of stipulated penalties in the nature of settlement without the need to specifically identify the grounds for the penalty. Such payment of stipulated penalties shall not

constitute an admission of liability, nor shall it raise any presumption whatsoever about the nature, existence or strength of the Sinclair Refineries' potential defenses; (ii) if an Acid Gas Flaring Incident falls under Paragraph 88 of this Decree, describes which Subparagraph 88.a or 88.b applies and why; and (iii) if an Acid Gas Flaring Incident falls under either Paragraph 87 or 88.b, states whether or not the Sinclair Refineries assert a defense to the Flaring Incident, and if so, a description of the defense;

(g) To the extent that investigations of the causes and/or possible corrective actions still are underway on the due date of the report, a statement of the anticipated date by which a follow-up report fully conforming to the requirements of Subparagraphs 79.d and 79.e shall be submitted; provided, however, that if the Sinclair Refineries have not submitted a report or a series of reports containing the information required to be submitted under this Paragraph within the 45-day time period set forth in this Paragraph 79 (or such additional time as EPA may allow) after the due date for the initial report for the Acid Gas Flaring Incident, the stipulated penalty provisions of Part XI shall apply, but the Sinclair Refineries shall retain the right to dispute, under the dispute resolution provision of this Consent Decree, any demand for stipulated penalties that was issued as a result of the Sinclair Refineries' failure to submit the report required under this Paragraph within the time frame set forth. Nothing in this Paragraph shall be deemed to excuse the Sinclair Refineries from their investigation, reporting and corrective action obligations under this Section for any Acid Gas Flaring Incident which occurs after an Acid Gas Flaring Incident for which the Sinclair Refineries have requested an extension of time under this Subparagraph 79.g; and

(h) To the extent that completion of the implementation of corrective action(s), if any, is not finalized at the time of the submission of the report required under this Paragraph, then, by no later than thirty (30) days after completion of the implementation of corrective action(s), the Sinclair Refineries shall submit a report identifying the corrective action(s) taken and the dates of commencement and completion of implementation.

80. Corrective Action.

a. In response to any AG Flaring Incident, the Sinclair Refineries shall take, as expeditiously as practicable, such interim and/or long-term corrective actions, if any, as are consistent with good engineering practice to minimize the likelihood of a recurrence of the Root Cause and all significant contributing causes of that AG Flaring Incident.

b. If EPA does not notify the Sinclair Refineries in writing within forty-five (45) days of receipt of the report(s) required by Paragraph 79 that it objects to one or more aspects of the proposed corrective action(s) and schedule(s) of implementation, if any, then that (those) action(s) and schedule(s) shall be deemed acceptable for purposes of compliance with Paragraph 80.a of this Decree. EPA does not, however, by its failure to object to any corrective action that the Sinclair Refineries may take in the future, warrant or aver in any manner that any corrective actions in the future shall result in compliance with the provisions of the Clean Air Act or its implementing regulations.

c. If EPA objects, in whole or in part, to the proposed corrective action(s) and/or the schedule(s) of implementation or, where applicable, to the absence of such proposal(s) and/or schedule(s), it shall notify the Sinclair Refineries and explain the basis for its objection (s) in writing within forty-five (45) days following receipt of the report(s) required by Paragraph 79, and the Sinclair Refineries shall respond promptly to EPA's objection(s).

d. Nothing in this Section V.J. shall be construed to limit the right of the Sinclair Refineries to take such corrective action as they deem necessary and appropriate immediately following an Acid Gas Flaring Incident or in the period during preparation and review of any reports required under this Paragraph.

81-84. Reserved.

85. Stipulated Penalties for Acid Gas Flaring Incidents. The provisions of Paragraphs 86 through 89 are to be used by EPA in assessing stipulated penalties for AG Flaring Incidents occurring on and after Date of Entry and by the United States in demanding stipulated penalties under this Section V.J. The provisions of Paragraphs 86-89 do not apply to HC Flaring Incidents.

86. The stipulated penalty provisions of Paragraph 224 shall apply to any Acid Gas Flaring Incident for which the Root Cause was one or more or the following acts, omissions, or events:

(a) Error resulting from careless operation by the personnel charged with the responsibility for the Sulfur Recovery Plant, TGU, or Upstream Process Units;

(b) Failure to follow written procedures; or

(c) A failure of equipment that is due to a failure by the Sinclair Refineries to operate and maintain that equipment in a manner consistent with good engineering practice.

87. If the Acid Gas Flaring Incident is not a result of one of the Root Causes identified in Paragraph 86, then the stipulated penalty provisions of Paragraph 224 shall apply if the Acid Gas Flaring Incident:

(a) Results in emissions of sulfur dioxide at a rate greater than twenty (20.0) pounds per hour continuously for three (3) consecutive hours or more and the Sinclair Refineries failed to act in accordance with its PMO Plan and/or to take any action during the Acid Gas Flaring Incident to limit the duration and/or quantity of SO_2 emissions associated with such incident; or

(b) Causes the total number of Acid Gas Flaring Incidents in a rolling twelve (12) month period to exceed five (5) per refinery.

88. With respect to any Acid Gas Flaring Incident not identified in Paragraphs 86 or 87, the following provisions shall apply:

a. First Time: If the Root Cause of the Acid Gas Flaring Incident was not a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident that occurred since Date of Entry, then:

(1) If the Root Cause of the Acid Gas Flaring Incident was sudden, infrequent, and not reasonably preventable through the exercise of good engineering practice, then that cause shall be designated as an agreed-upon malfunction for purposes of reviewing subsequent Acid Gas Flaring Incidents; or

(2) If the Root Cause of the Acid Gas Flaring Incident was sudden and infrequent, and was reasonably preventable through the exercise of good engineering practice, then the Sinclair Refineries shall implement corrective action(s) pursuant to Paragraph 80, and the stipulated penalty provisions of Part XI shall not apply.

b. Recurrence: If the Root Cause is a recurrence of the same Root Cause that resulted in a previous Acid Gas Flaring Incident that occurred since the Date of Entry, then the Sinclair Refineries shall be liable for stipulated penalties under Part XI unless:

(1) the Flaring Incident resulted from a Malfunction; or

(2) the Root Cause previously was designated as an agreed-upon malfunction under Paragraph 88.a.(1); or

(3) the AG Flaring Incident had as its Root Cause the recurrence of a Root Cause for which the Sinclair Refineries had previously developed, or was in the process of developing, a corrective action plan and for which the Sinclair Refineries had not yet completed implementation.

89. Defenses. The Sinclair Refineries may raise the following affirmative defenses in response to a demand by the United States for stipulated penalties:

(a) *Force majeure*;

(b) As to Paragraph 86, the Acid Gas Flaring Incident does not meet the identified criteria;

(c) As to Paragraph 87, Malfunction; and,

(d) As to Paragraph 88, the Incident does not meet the identified criteria and/or was due to a Malfunction.

90. In the event a dispute under Paragraphs 85 through 89 is brought to the Court pursuant to the Dispute Resolution provisions of this Consent Decree, the Sinclair Refineries may also assert a Start up, Shutdown and/or upset defense, but the United States shall be entitled to assert that such defenses are not available. If the Sinclair Refineries prevail in persuading the Court that the defenses of Startup, Shutdown and/or upset are available for AG Flaring Incidents under 40 C.F.R. 60.104(a)(1), the Sinclair Refineries shall not be liable for stipulated penalties for emissions resulting from such Startup, Shutdown and/or upset. If the United States prevails in persuading the Court that the defenses or Startup, Shutdown and/or upset are not available, the Sinclair Refineries shall be liable for such stipulated penalties.

91. Other than for a Malfunction or *force majeure*, if no Acid Gas Flaring Incident occurs at a Sinclair Refinery for a rolling 36-month period, then the stipulated penalty provisions

of Section V.J. shall no longer apply to that refinery. EPA may elect to reinstate the stipulated penalty provision if such Refinery has an Acid Gas Flaring Incident which would otherwise be subject to stipulated penalties. EPA's decision shall not be subject to dispute resolution. Once reinstated, the stipulated penalty provision shall continue for the remaining life of this Consent Decree for that Refinery.

92. Emission Calculations.

a. Calculation of the Quantity of Sulfur Dioxide Emissions Resulting from AG Flaring. For purposes of this Consent Decree, the quantity of SO_2 emissions resulting from an AG Flaring Incident shall be calculated by the following formula:

$$\text{Tons of } SO_2 = [FR][TD][Conc H_2S][8.44 \times 10^{-5}]$$

The quantity of SO_2 emitted shall be rounded to one decimal point. (Thus, for example, for a calculation that results in a number equal to 10.050 tons, the quantity of SO_2 emitted shall be rounded to 10.1 tons.) For purposes of determining the occurrence of, or the total quantity of SO_2 emissions resulting from, an AG Flaring Incident that is comprised of intermittent AG Flaring, the quantity of SO_2 emitted shall be equal to the sum of the quantities of SO_2 flared during each 24-hour period starting when the Acid Gas was first flared.

b. Calculation of the Rate of SO_2 Emissions During AG Flaring. For purposes of this Consent Decree, the rate of SO_2 emissions resulting from an AG Flaring Incident shall be expressed in terms of pounds per hour and shall be calculated by the following formula:

$$ER = [FR][Conc H_2S][0.169].$$

The emission rate shall be rounded to one decimal point. (Thus, for example, for a calculation that results in an emission rate of 19.95 pounds of SO_2 per hour, the emission rate shall be rounded to 20.0 pounds of SO_2 per hour; for a calculation that results in an emission rate of 20.05 pounds of SO_2 per hour, the emission rate shall be rounded to 20.1.)

c. Meaning of Variables and Derivation of Multipliers Used in the Equations in this Paragraph 92:

ER	=	Emission Rate in pounds of SO_2 per hour
FR	=	Average Flow Rate to Flaring Device(s) during Flaring Incident in standard cubic feet per hour
TD	=	Total Duration of Flaring Incident in hours
ConcH_2S	=	Average Concentration of Hydrogen Sulfide in gas during Flaring Incident (or immediately prior to Flaring Incident if all gas is being flared) expressed as a volume fraction (scf H_2S/scf gas)
8.44 x 10-5	=	[lb mole H_2S/379 scf H_2S][64 lbs SO_2/lb mole H_2S][Ton/2000 lbs]
0.169	=	[lb mole H_2S/379 scf H_2S][1.0 lb mole SO_2/1 lb mole H_2S][64 lb SO_2/1.0 lb mole SO_2]

The flow of gas to the AG Flaring Device(s) ("FR") shall be as measured by the relevant flow meter or reliable flow estimation parameters. Hydrogen sulfide concentration ("ConcH_2S") shall be determined from the Sulfur Recovery Plant feed gas analyzer, from knowledge of the sulfur content of the process gas being flared, by direct measurement by tutwiler or draeger tube analysis or by any other method approved by EPA or the Co-Plaintiffs. In the event that any of these data points is unavailable or inaccurate, the missing data point(s) shall be estimated according to best engineering judgment. The report required under Paragraph 79 shall include the data used in the calculation and an explanation of the basis for any estimates of missing data points.

93. Tail Gas Incidents.

a. Investigation, Reporting, Corrective Action and Stipulated Penalties. For Tail Gas Incidents occurring on or after the Date of Entry, the Sinclair Refineries shall follow the same investigative, reporting and corrective action requirements as set forth in Paragraphs 79 and 80 and the same assessment of stipulated penalty procedures, as set forth in Paragraphs 86 through 91. These procedures shall be applied to TGU shutdowns, bypasses of a TGU, or other events which result in a Tail Gas Incident, including unscheduled Shutdowns of a Claus Sulfur Recovery Plant.

b. Calculation of the Quantity of SO_2 Emissions Resulting from a Tail Gas Incident. For the purposes of this Consent Decree, the quantity of SO_2 emissions resulting from a Tail Gas Incident shall be calculated by one of the following methods, based on the type of event:

(1) If Tail Gas is combusted in a flare, the SO_2 emissions are calculated using the methods outlined in Paragraph 92; or

(2) If Tail Gas exceeding the 250 ppmvd (NSPS J limit) is emitted from a monitored SRP incinerator, then the following formula applies:

$$ER_{TGI} = \sum_{i=1}^{TD_{TGI}} 3\,[FR_{Inc.}]_i\,[\text{Conc. } SO_2 - 250]_i\,[0.169 \times 10^{-6}]\,\left[\frac{20.9 - \%\,O_2}{20.9}\right]_i$$

Where:

ER_{TGI}	=	Emissions from Tail Gas Unit at the SRP incinerator, pounds of SO_2 over a 24 hour period
TD_{TGI}	=	Hours when the incinerator CEM was exceeding 250 ppmvd SO_2 on a rolling twelve hour average, corrected to 0% O_2, in each 24 hour period of the Incident
i	=	Each hour within TDTGI
$FR_{Inc.}$	=	Incinerator Exhaust Gas Flow Rate (standard cubic feet per hour, dry basis) (actual stack monitor data or engineering estimate based on the acid gas feed rate to the SRP) for each hour of the Incident
Conc. SO_2	=	The average SO_2 concentration (CEMS data) that is greater than 250 ppm in the incinerator exhaust gas, ppmvd corrected to 0% O_2, for each hour of the Incident
% O_2	=	O_2 concentration (CEMS data) in the incinerator exhaust gas in volume % on dry basis for each hour of the Incident
0.169 x 10-6	=	[lb mole of SO_2 / 379 SO_2] [64 lbs SO_2 / lb mole SO_2] [1 x 10^{-6}]
Standard conditions	=	60 degree F; 14.7 lb_{force}/sq.in. absolute

In the event the concentration SO_2 data point is inaccurate or not available or a flow meter for FR_{Inc}, does not exist or is inoperable, then the Sinclair Refineries shall estimate emissions based on best engineering judgment.

K. Control of Hydrocarbon Flaring Incidents

94. For Hydrocarbon Flaring Incidents occurring after the Date of Entry, the Sinclair Refineries shall follow the same investigative, reporting, and corrective action procedures as those set forth in Paragraphs 79 and 80 (Acid Gas Flaring Incidents); provided however, that in lieu of analyzing possible corrective actions under Paragraph 79.e and taking interim and/or

long-term corrective action under Paragraph 80 for a Hydrocarbon Flaring Incident attributable to the startup or shutdown of a unit that the Sinclair Refineries have previously analyzed under this Paragraph, the Sinclair Refineries may identify such prior analysis when submitting the report required under this Paragraph. The Sinclair Refineries shall submit Hydrocarbon Flaring Incident(s) reports as part of the Semi-annual Progress Reports required pursuant to Part IX. Stipulated penalties under Paragraphs 86 - 91 shall not apply to Hydrocarbon Flaring Incident(s). The formulas at Paragraph 92 (AG Flaring Incidents) shall be used to calculate the quantity and rate of sulfur dioxide emissions during HC Flaring Incidents.

L. CERCLA/EPCRA

95. To the extent that, during the course of the Sinclair Refineries' development of the root cause failure analysis required by Sections V.J. and V.K., any of the Sinclair Refineries discover information possibly demonstrating a failure by the refinery to comply with the reporting requirements for continuous releases of SO_2 pursuant to Section 103(c) of CERCLA and/or Section 304 of EPCRA, including the regulations promulgated thereunder, a voluntary disclosure by that refinery of any such violations will not be deemed "untimely" under EPA's Audit Policy or any Co-Plaintiff's audit policy, solely on the ground that it is submitted more than twenty-one (21) days after it is discovered, provided all such disclosures are made by no later than the Date of Entry (the due date for Flaring Device NSPS applicability).

M. Benzene Waste Operations NESHAP Program Enhancements.

In addition to continuing to comply with all applicable requirements of 40 C.F.R. Part 61, Subpart FF ("Benzene Waste Operations NESHAP" or "Subpart FF"), the Sinclair Refineries agree to undertake the measures set forth in this Section V.M. to ensure continuing compliance with Subpart FF and to minimize or eliminate fugitive benzene waste emissions.

96. Current Compliance Status. The Sinclair Refineries will utilize the following compliance options:

(a) On and after the Date of Entry, the STRC will comply with the compliance option set forth at 40 C.F.R. § 61.342(e) (hereinafter referred to as the "6 BQ compliance option");

(b) On and after the later of the Date of Entry or December 31, 2007, the SWRC will comply with the 6 BQ compliance option; and

(c) The SCRC has reported a Total Annual Benzene ("TAB") of less than 10 Mg/yr.

97. Refinery Compliance Status Changes. Commencing on the Date of Entry of the Consent Decree and continuing through termination, the Sinclair Refineries will not change the compliance status of any Refinery from the 6 BQ compliance option to the 2 Mg compliance option. If at any time from the Date of Lodging of the Consent Decree through its termination, the SCRC is determined to have a TAB equal to or greater than 10 Mg/yr, the SCRC will utilize the 6 BQ compliance option. The SCRC will consult with EPA and the Applicable Co-Plaintiff before making any change in compliance strategy not expressly prohibited by this Paragraph 97. All changes must be undertaken in accordance with the regulatory provisions of the Benzene Waste Operations NESHAP.

98. One-Time Review and Verification of Each Sinclair Refinery's TAB: Phase One of the Review and Verification Process. By no later than December 31, 2007 or 90 days after entry, the SWRC (for the Sinclair Wyoming Refinery) and the STRC (for the Sinclair Tulsa Refinery) will complete a review and verification of the appropriate refinery's TAB and compliance with the 6 BQ compliance option. For purposes of compliance with this Paragraph, each Sinclair Refinery may use the results of TAB audits performed at its Refineries prior to entry of this Consent Decree, provided such audits were conducted after January 1, 2004. The Sinclair Refineries' Phase One review and verification process will include, but is not be limited to:

(a) an identification of each waste stream that is required to be included in the TAB (*e.g.*, slop oil, tank water draws, spent caustic, desalter rag layer dumps, desalter vessel process sampling points, other sample wastes, maintenance wastes, and turnaround wastes (that meet the definition of waste under Subpart FF));

(b) a review and identification of the calculations and/or measurements used to determine the flows of each waste stream for the purpose of ensuring the accuracy of the annual waste quantity for each waste stream;

(c) an identification of the benzene concentration in each waste stream, including sampling for benzene concentration at no less than 10 waste

streams consistent with the requirements of 40 C.F.R. § 61.355(c)(1) and (3); provided however, that previous analytical data or documented knowledge of waste streams may be used in accordance with 40 C.F.R. § 61.355(c)(2), for streams not sampled; and

(d) an identification of whether or not the stream is controlled consistent with the requirements of Subpart FF.

99. By no later than the dates set forth below, each of the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff a Benzene Waste Operations NESHAP Compliance Review and Verification Report ("BWON Compliance Review and Verification Report") that sets forth the results of Phase One, including but not limited to the items identified in (a) through (d) of Paragraph 98.

STRC – Date of Entry

SWRC – Date of Entry

SCRC – 180 Days of Date of Entry

100. One-Time Review and Verification of the Sinclair Refineries' TAB: Phase Two of the Review and Verification Process. Based on EPA's review of the BWON Compliance Review and Verification Reports and after an opportunity for consultation with the Applicable Co-Plaintiff, EPA may select up to twenty (20) additional waste streams at each of the Sinclair Refineries for sampling for benzene concentration. The Sinclair Refineries will conduct the required sampling and submit the results to EPA within sixty (60) days of receipt of EPA's request. The Sinclair Refineries will use the results of this additional sampling to reevaluate the TAB and the uncontrolled benzene quantity and to amend the BWON Compliance Review and Verification Report, as needed. To the extent that EPA requires the Sinclair Refineries to sample a waste stream as part of the Phase Two review that the Sinclair Refineries sampled and included as part of its Phase One review, the Sinclair Refineries may average the results of such sampling. The Sinclair Refineries will submit an amended BWON Compliance Review and Verification Report within one-hundred twenty (120) days following the date of the completion of the required Phase Two sampling, if Phase Two sampling is required by EPA. This amended BWON Compliance Review and Verification Report will supercede and replace the originally-submitted BWON Compliance Review and Verification Report. If Phase Two sampling is not

required by EPA, the originally-submitted BWON Compliance Review and Verification Report will constitute the final report.

101. Amended TAB Reports. If the results of the BWON Compliance Review and Verification Report indicate that any of the Sinclair Refineries' most recently-filed TAB reports does not satisfy the requirements of Subpart FF, the relevant Sinclair Refinery will submit, by no later than one-hundred twenty (120) days after completion of the BWON Compliance Review and Verification Report, an amended TAB report to the applicable state agency. Each Sinclair Refinery's BWON Compliance Review and Verification Report will be deemed an amended TAB report for purposes of Subpart FF reporting to EPA.

102. Reserved.

103. Implementation of Actions Necessary to Correct Non-Compliance: Casper Refinery. If the results of the BWON Compliance Review and Verification Report indicate that the Sinclair Casper Refinery has a TAB of over 10 Mg/yr, the SCRC will submit to EPA, by no later than one-hundred eighty (180) days after completion of the BWON Compliance Review and Verification Report, a plan that identifies with specificity: (a) the actions it will take to ensure that the Refinery's TAB remains below 10 Mg/yr for 2008 and each calendar year thereafter; or (b) a compliance strategy and schedule that the SCRC will implement to ensure that it complies with the 6 BQ compliance option as soon as practicable but by no later than June 30, 2009, if it cannot ensure a consistent TAB below 10 Mg/yr.

104. Implementation of Actions Necessary to Correct Non-Compliance: Review and Approval of Plans. Any plans submitted pursuant to Paragraph 103 will be subject to the approval of, disapproval of, or modification by EPA, after an opportunity for consultation with the Applicable Co-Plaintiff. Within sixty (60) days after receiving any notification of disapproval or request for modification from EPA, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff a revised plan that responds to all identified deficiencies. Unless EPA responds to the Sinclair Refineries' revised plan within sixty (60) days, the Sinclair Refineries will implement their proposed plan.

105. Implementation of Actions Necessary to Correct Non-Compliance: Certification of Compliance. By no later than thirty (30) days after completion of the implementation of all actions, if any, required pursuant to Paragraphs 103-105 to come into compliance with the applicable compliance option, the Sinclair Refineries will submit their certification and a report to EPA and the Applicable Co-Plaintiff that complies with the Benzene Waste Operations NESHAP.

106. Carbon Canisters. The Sinclair Refineries will comply with the requirements of Paragraphs 107-117 at all locations where (a) carbon canister(s) is (are) utilized as a control device under the Benzene Waste Operations NESHAP. To the extent that any applicable state or local rule, regulation, or permit contains more stringent definitions, standards, limitations, or work practices than those set forth in Paragraphs 107-117, then those definitions, standards, limitations or work practices will apply instead.

107. Installation of Primary and Secondary Canisters Operated in Series. By no later than December 31, 2007, the Sinclair Refineries will replace all single carbon canisters or dual canister systems in parallel with primary and secondary carbon canisters and operate them in series.

108. Report Certifying Installation. By no later than March 31, 2008, the Sinclair Refineries will submit a report to EPA and the Applicable Co-Plaintiff certifying the completion of the installations required by Paragraph 107. The report will include a list of all locations within each Refinery where secondary carbon canisters were installed, the installation date of each secondary canister, the date that each secondary canister was put into operation, whether the Sinclair Refineries are monitoring for breakthrough for VOCs or benzene, and the concentration of the monitored parameter that each Refinery uses as its definition of "breakthrough." The Sinclair Refineries must provide written notification to EPA and the Applicable Co-Plaintiff at least thirty (30) days prior to changing either the parameter that it is monitoring and/or the concentration that it defines as "breakthrough."

109. Prohibition of Use of Single Canisters. Except as expressly provided in Paragraph 114, the Sinclair Refineries will not use single carbon canisters for any new units or

installations that require vapor control pursuant to the Benzene Waste Operations NESHAP at any of its Refineries.

110. Definition of "Breakthrough" in Dual Canister Systems. For dual carbon canister systems in series and depending upon the parameter that each Sinclair Refinery decides to monitor, "breakthrough" between the primary and secondary canister is defined as any reading equal to or greater than either 50 ppm volatile organic compounds ("VOC") or 1 ppm benzene. At its option, each Sinclair Refinery may utilize a concentration for "breakthrough" that is lower than 50 ppm VOC or 1 ppm benzene.

111. Monitoring for Breakthrough in Dual Canister Systems. By no later than the later of December 31, 2008, or seven (7) days after the installation of any new dual canister, the Sinclair Refineries will start to monitor for breakthrough between the primary and secondary carbon canisters at times when there is actual flow to the carbon canister, in accordance with the frequency specified in 40 C.F.R. § 61.354(d), and will monitor the outlet of the secondary canister on a monthly basis or at its design replacement interval (whichever is less) to verify the proper functioning of the system. In the event there is no flow to the canister, the Refinery shall document the lack of flow and remonitor at the next monitoring period.

112. Replacing Canisters in Dual Canister Systems. The Sinclair Refineries will replace the original primary carbon canister (or route the flow to an appropriate alternative control device) immediately when breakthrough is detected. The original secondary carbon canister will become the new primary carbon canister and a fresh carbon canister will become the secondary canister unless both the primary and secondary carbon canisters are replaced. For purposes of this Paragraph, "immediately" will mean eight (8) hours for canisters of 55 gallons or less and twenty-four (24) hours for canisters greater than 55 gallons. If a Refinery chooses to define breakthrough for primary carbon canister replacement at 5 ppm or lower VOC, that Refinery may replace primary canisters of 55 gallons or less within twenty-four (24) hours of detecting breakthrough.

113. In lieu of replacing the primary canister immediately, the Sinclair Refineries may elect to monitor the secondary canister on the day breakthrough between the primary and secondary canister is identified and each calendar day thereafter. This daily monitoring will

continue until the primary canister is replaced. If the monitored parameter (either benzene or VOC) is detected above background levels at the outlet of the secondary canister during this period of daily monitoring, both canisters must be replaced within eight (8) hours.

114. Limited Use of Single Canisters. The Sinclair Refineries may utilize properly sized single canisters for short-term operations such as with temporary storage tanks or as temporary control devices. For canisters operated as part of a single canister system, breakthrough is defined for purposes of this Decree as any reading of VOC or benzene above background. Beginning no later than the later of the Date of Entry, the Sinclair Refineries will monitor for breakthrough from single carbon canisters each day there is actual flow to the carbon canister.

115. Replacing Canisters in Single Canister Systems. The Sinclair Refineries will replace the single carbon canister with a fresh carbon canister, discontinue flow or route the stream to an alternate, appropriate device immediately when breakthrough is detected. For this Paragraph, "immediately" will mean eight (8) hours for canisters of 55 gallons or less and twenty-four (24) hours for canisters greater than 55 gallons. If flow to a single canister is discontinued under this Paragraph, such canister may not be placed back into BWON vapor control service until it has been appropriately regenerated or replaced.

116. Maintaining Canister Supplies. The Sinclair Refineries will maintain a supply of fresh carbon canisters at each Refinery at all times.

117. Records relating to Canisters. Records for the requirements of Paragraphs 107-116 will be maintained in accordance with 40 C.F.R. § 61.356(j)(10).

118. Annual Review. By no later than June 30, 2008, the Sinclair Refineries will modify existing management of change procedures or develop a new program to annually review process and project information for each Refinery, including but not limited to construction projects, to ensure that all new benzene waste streams are included in each Refinery's waste stream inventory during the life of the Consent Decree.

119. Laboratory Audits. The Sinclair Refineries will conduct audits of all laboratories that perform analyses of the Sinclair Refineries' benzene waste NESHAP samples to ensure that proper analytical and quality assurance/quality control procedures are followed.

120. By no later than June 30, 2008, the Sinclair Refineries will complete audits of all of the laboratories they use to perform analyses of benzene waste NESHAP samples. After June 30, 2008, the Sinclair Refineries will audit any new laboratory to be used for analyses of benzene waste NESHAP samples prior to such use.

121. If the Sinclair Refineries have completed an audit of any laboratory on or after January 1, 2004, the Sinclair Refineries will not be required to perform additional audits of those laboratories pursuant to Paragraph 120.

122. During the life of this Consent Decree, the Sinclair Refineries will conduct subsequent laboratory audits, such that each laboratory is audited every two (2) years.

123. The Sinclair Refineries may retain third parties to conduct these audits or use audits conducted by others as its own, but the responsibility and obligation to ensure that its Refineries comply with this Consent Decree and Subpart FF rest solely with the Sinclair Refineries.

124. Benzene Spills. For each spill at a Sinclair Refinery after Date of Entry of the Consent Decree, each Sinclair Refinery shall review the spill to determine if benzene waste, as defined by Subpart FF, was generated. For each spill involving the release of more than 10 pounds of benzene in a 24-hour period, the Refinery: (i) shall include benzene waste generated by the spill in the relevant Refinery's TAB, as required by 40 C.F.R. § 61.342; and (ii) shall account for such benzene waste in accordance with the applicable compliance option calculations, as appropriate under Subpart FF, unless the benzene waste is properly managed in controlled waste management units at the Refinery.

125. Training. By the later of the Date of Entry or December 31, 2007, the Sinclair Refineries will develop and begin implementation of annual (*i.e.*, once each calendar year) training for all employees asked to draw benzene waste samples.

126. Additional Training:

a. By the later of the Date of Entry or December 31, 2007, the STRC and the SWRC will complete the development of standard operating procedures for all control equipment used to comply with the Benzene Waste Operations NESHAP. By no later than June 30, 2008, the STRC and the SWRC will complete an initial training program regarding these procedures for all operators assigned to this equipment. Comparable training will also be provided to any persons who subsequently become operators, prior to their assumption of this duty. Until termination of this Decree, "refresher" training in these procedures will be performed at a minimum on a three (3) year cycle.

b. The SCRC will comply with the provisions of Paragraph 126.a if and when its TAB reaches 10 Mg/yr. The SCRC will propose a schedule for training at the same time that it proposes a plan, pursuant to Paragraph 103, that identifies the compliance strategy and schedule that the SCRC will implement to come into compliance with the 6 BQ compliance option.

127. Training: Contractors. As part of the Sinclair Refineries' training programs, the Sinclair Refineries must ensure that the employees of any contractors hired to perform the requirements of Paragraphs 125 and 126 are properly trained to implement all applicable provisions of this Section V.M.

128. Waste/Slop/Off-Spec Oil Management: Schematics. By no later than 60 days after Date of Entry, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff schematics for each Refinery that: (a) depict the waste management units (including sewers) that handle, store, and transfer waste, slop, or off-spec oil streams; (b) identify the control status of each waste management unit; and (c) show how such oil is transferred within the Refinery. The Sinclair Refineries will include with the schematics a quantification of all uncontrolled waste, slop, or off-spec oil movements at the Refinery. If requested by EPA, the Sinclair Refineries will submit to EPA within ninety (90) days of the request, revised schematics regarding the characterization of these waste, slop, off-spec oil streams and the appropriate control standards.

129. Waste/Slop/Off-Spec Oil Management: Non-Aqueous Benzene Waste Streams. All waste management units handling non-exempt, non-aqueous benzene wastes, as defined in Subpart FF, will meet the applicable control standards of Subpart FF.

130. Waste/Slop/Off-Spec Oil Management: Aqueous Benzene Waste Streams. For purposes of calculating each Refinery's TAB pursuant to the requirements of 40 C.F.R. § 61.342(a), the Sinclair Refineries will include all waste/slop/off-spec oil streams that become "aqueous" until such streams are recycled to a process or put into a process feed tank (unless the tank is used primarily for the storage of wastes). Appropriate adjustments will be made to such calculations to avoid the double-counting of benzene. For purposes of complying with the 6 BQ compliance option, all waste management units handling benzene waste streams will either meet the applicable control standards of Subpart FF or will have their uncontrolled benzene quantity count toward the applicable 6 BQ limit.

131. Benzene Waste Operations Sampling Plans: General. By no later than three months after entry of the CD, the Sinclair Refineries will submit to EPA and the Applicable Co-Plaintiff benzene waste operations sampling plans designed to describe the sampling of benzene waste streams that the Sinclair Refineries will undertake to estimate quarterly and annual TABs for the Sinclair Casper Refinery or quarterly and annual uncontrolled benzene quantities under the 6 BQ compliance option for the Sinclair Tulsa Refinery and the Sinclair Wyoming Refinery.

132. Benzene Waste Operations Sampling Plans: Content Requirements.

a. The Sinclair Casper Refinery (TAB under 10 Mg/yr). The sampling plan will identify:

(1) all waste streams that contributed 0.05 Mg/yr or more at the point of generation to the previous year's TAB calculations; and

(2) the proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual TAB calculations under the terms of Paragraph 135; or

(3) the items identified under Paragraph 132.b(2) if it is determined that the TAB equals or exceeds 10 Mg/yr and it is then subject to the 6 BQ Compliance Option under Paragraph 97.

The sampling plan will require the SCRC to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph (a)(i) and all locations identified in Subparagraph (a)(ii).

b. The Sinclair Tulsa and the Sinclair Wyoming Refineries (6 BQ Compliance Option). The sampling plans will identify:

(1) All uncontrolled waste streams that count toward the 6 BQ calculation and contain greater than 0.05 Mg/yr of benzene at the point of generation; and

(2) The proposed sampling locations and methods for flow calculations to be used in calculating projected quarterly and annual uncontrolled benzene quantity calculations under the terms of Paragraph 135.

The sampling plan will require the STRC and the SWRC to take, and have analyzed, in each calendar quarter, at least three representative samples from all waste streams identified in Subparagraph (b)(1) and all locations identified in Subparagraph (b)(2).

c. Compliance Plan under Paragraph 103. If the SCRC must implement a compliance plan under Paragraph 103, the SCRC may submit a proposed sampling plan that does not include sampling points in locations within the Refinery that are subject to changes proposed in the compliance plan. To the extent that the SCRC believes that such sampling will not be effective until it completes implementation of the compliance plan and by no later than sixty (60) days prior to the due date for the submission of the sampling plan, the SCRC may request EPA approval for postponing its submitting a sampling plan and commencing sampling until the compliance plan is completed. Should EPA disapprove, the SCRC will submit a plan by the due date in Paragraph 104.

133. Benzene Waste Operations Sampling Plans: Timing for Implementation. The Sinclair Refineries will implement the sampling required under each sampling plan during the first full calendar quarter after the Sinclair Refineries submit the plan for each Refinery. The Sinclair Refineries will continue to implement the sampling plan (i) unless and until EPA disapproves the plans; or (ii) unless and until the Sinclair Refineries modify the plans, with EPA's approval, under Paragraph 134.

134. Benzene Waste Operations Sampling Plans: Modifications.

a. Changes in Processes, Operations or Other Factors. If changes in processes, operations or other factors lead any of the Sinclair Refineries to conclude that a sampling plan may no longer provide an accurate basis for estimating the Refinery's quarterly or annual TABs or benzene quantities under Paragraph 135, then by no later than ninety (90) days after the relevant Sinclair Refinery determines that the plan no longer provides an accurate measure, the relevant Sinclair Refinery will submit to EPA and the Applicable Co-Plaintiff a revised plan for EPA approval. In the first full calendar quarter after submitting the revised plan, the relevant Sinclair Refinery will implement the revised plan. The relevant Sinclair Refinery will continue to implement the revised plan unless and until EPA disapproves the revised plan after an opportunity for consultation with the Applicable Co-Plaintiff.

b. Requests for Modifications. After two (2) years of implementing a sampling plan, any Sinclair Refinery may submit a request to EPA for approval, with a copy to the Applicable Co-Plaintiff, to revise its sampling plan, including sampling frequency. EPA will not unreasonably withhold its consent. The relevant Sinclair Refinery will not implement any proposed revisions under this Subparagraph until EPA provides its approval after an opportunity for consultation with the Applicable Co-Plaintiff.

135. Quarterly and Annual Estimations of TABs and Uncontrolled Benzene Quantities. At the end of each calendar quarter and based on sampling results and approved flow calculations, the SCRC will calculate a quarterly and projected annual TAB; and the SWRC and the STRC will calculate their uncontrolled benzene quantity. In making these calculations, the Sinclair Refineries will use the average of the three samples collected at each sampling location. If these calculations do not identify any potential violations of the benzene waste operations NESHAP, the Sinclair Refineries will submit these calculations in the reports due under Part IX of this Decree.

136. Corrective Measures: Basis. Except as set forth in Paragraph 137, the Sinclair Refineries will implement corrective measures if:

(a) For the Sinclair Casper Refinery, the quarterly TAB equals or exceeds 2.5 Mg or the projected annual TAB equals or exceeds 10 Mg for the then-current compliance year; or

(b) For the Sinclair Tulsa and the Sinclair Wyoming Refineries, the quarterly uncontrolled benzene quantity equals or exceeds 1.5 Mg or the projected annual uncontrolled benzene quantity equals or exceeds 6 Mg for the then-current compliance year.

137. Exception to Implementing Corrective Measures. If the Sinclair Refineries can identify the reason(s) in any particular calendar quarter that the quarterly and projected annual calculations result in benzene quantities in excess of those identified in Paragraph 136 and states that it does not expect such reason or reasons to recur, then the Sinclair Refineries may exclude the benzene quantity attributable to the identified reason(s) from the projected calendar year quantity. If that exclusion results in no potential violation of the Benzene Waste Operation NESHAP, the Sinclair Refineries will not be required to implement corrective measures under Paragraph 136, and the Sinclair Refineries may exclude the uncontrolled benzene attributable to the identified reason(s) in determining the applicability of Paragraph 139. At any time that the Sinclair Refineries proceeds under this Paragraph, the Sinclair Refineries will describe how they satisfied the conditions in this Paragraph in the reports due under Part IX of this Decree.

138. Compliance Assurance Plan. If the Sinclair Refineries meet one or more conditions in Paragraph 136 (except as provided under Paragraph 137), then by no later than sixty (60) days after the end of the calendar quarter in which one or more of the conditions were met, the Sinclair Refineries will submit a compliance assurance plan to EPA for approval, with a copy to the Applicable Co-Plaintiff. In that compliance assurance plan, the Sinclair Refineries will identify the cause(s) of the potentially-elevated benzene quantities, all corrective actions that the Sinclair Refineries have taken or plan to take to ensure that the cause(s) will not recur, and the schedule of actions that the Sinclair Refineries will take to ensure that the subject refinery complies with the Benzene Waste Operations NESHAP for the calendar compliance year. The Sinclair Refineries will implement the plan unless and until EPA disapproves after an opportunity for consultation with the Applicable Co-Plaintiff.

139. Third-Party Assistance. If at least one of the conditions in Paragraph 136 exists at a particular Refinery in two consecutive quarters, then that Refinery will retain a third-party

contractor during the following quarter to undertake a TAB study and compliance review at that Refinery. By no later than ninety (90) days after the Sinclair Refineries receive the results of the third-party TAB study and compliance review, the Sinclair Refineries will submit such results and a plan and schedule for remedying any deficiencies identified in the third-party study and compliance review to EPA and the Applicable Co-Plaintiff. The Sinclair Refineries will implement their proposed plan unless and until EPA disapproves after an opportunity for consultation with the Applicable Co-Plaintiff.

140. Miscellaneous Measures. The provisions of this Paragraph will apply to the SWRC and the STRC beginning no later than 90 days following the Date of Entry of this CD, and to the SCRC by no later than the date it submits a compliance strategy under Paragraph 103:

(a) Conduct monthly visual inspections of all Subpart FF water traps within the Refinery's individual drain systems;

(b) Identify and mark all area drains that are segregated storm water drains;

(c) On a weekly basis, visually inspect all Subpart FF conservation vents on process sewers for detectable leaks; reset any vents where leaks are detected; and record the results of the inspections. After two (2) years of weekly inspections, and based upon an evaluation of the recorded results, the Sinclair Refineries may submit a request to the Applicable EPA Region to modify the frequency of the inspections. EPA will not unreasonably withhold its consent. Nothing in this Paragraph (c) will require the Sinclair Refineries to monitor conservation vents on fixed roof tanks. Alternatively, for conservation vents with indicators that identify whether flow has occurred, the Sinclair Refineries may elect to visually inspect such indicators on a monthly basis and, if flow is then detected, the Sinclair Refineries will then visually inspect that indicator on a weekly basis for four (4) weeks. If flow is detected during any two (2) of those four (4) weeks, the Sinclair Refineries will install a carbon canister on that vent until appropriate corrective action(s) can be implemented to prevent such flow;

(d) Conduct quarterly monitoring of the controlled oil-water separators in benzene service in accordance with the "no detectable emissions" provision in 40 C.F.R. § 61.347. Should a Sinclair Refinery elect to use floating roof storage vessels in oil water separator service, the storage vessel inspections per 40 CFR 60 Subpart Kb shall be used in-lieu of the "no detectable emissions" provision; and

(e) Manage all groundwater remediation wastes that are covered by Subpart FF at each of its Refineries in appropriate waste management units under and as required by the Benzene Waste Operations NESHAP.

141. Recordkeeping and Reporting Requirements for this Section V.M: Outside of the Reports Required under 40 C.F.R. § 61.357 or under the Progress Report Procedures of Part IX (Recordkeeping and Reporting). At the times specified in the applicable provisions of this Section V.M, the Sinclair Refineries will submit, as and to the extent required, the following reports to EPA and the Applicable Co-Plaintiff:

(a) BWON Compliance Review and Verification Report (¶99), as amended, if necessary (¶100);

(b) Amended TAB Report, if necessary (¶101);

(c) Plan for the Sinclair Casper Refinery to come into compliance with the 6 BQ compliance option upon discovering that its TAB equals or exceeds 10 Mg/yr through the BWON Compliance Review and Verification Report (103), or through sampling (¶132);

(d) Compliance certification, if necessary (¶105);

(e) Report certifying the completion of the installation of dual carbon canisters (¶108);

(f) Schematics of waste/slop/off-spec oil movements (¶128), as revised, if necessary;

(g) Sampling Plans (¶131), and revised Sampling Plans, if necessary (¶134); and

(h) Plan to ensure that uncontrolled benzene does not equal or exceed, as applicable, 6 Mg/yr (¶138).

142. Recordkeeping and Reporting Requirements for this Section: As Part of Either the Reports Required under 40 C.F.R. § 61.357 or the Progress Report Procedures of Part IX (Recordkeeping and Reporting). The Sinclair Refineries will submit the following information as part of the information submitted in either the quarterly report required pursuant to 40 C.F.R. § 61.357(d)(6) and (7) ("Section 61.357 Reports") (for all but the Sinclair Casper Refinery) or in the reports due pursuant to Part IX of this Decree:

(a) Sampling Results under Paragraphs 134 and 135. The report will include a list of all waste streams sampled, the results of the benzene analysis for each sample, and the computation of the quarterly and projected calendar year TAB (for the Sinclair Casper Refinery) and the quarterly and projected calendar year uncontrolled benzene quantity (for the remaining Sinclair Wyoming and the Tulsa Refineries);

(b) Training. Initial and/or subsequent training conducted in accordance with Paragraphs 125-127; and

(c) Laboratory Audits. Initial and subsequent audits conducted pursuant to Paragraphs 119-123, through the calendar quarter for which the quarterly report is due, including in each such report, at a minimum, the identification of each laboratory audited, a description of the methods used in the audit, and the results of the audit.

143. At any time after two years of reporting pursuant to the requirements of Paragraph 142, the Sinclair Refineries may submit a request to EPA to modify the reporting frequency for any or all of the reporting categories of Paragraph 142. This request may include a request to report the previous year's projected calendar year TAB and uncontrolled benzene quantity in the Part IX report due on January 31 of each year, rather than semi-annually on January 31 and July 31 of each year. The Sinclair Refineries will not change the due dates for their reports under Paragraph 142 unless and until EPA approves the Sinclair Refineries' request after an opportunity for consultation with the Applicable Co-Plaintiff.

144. Certifications Required in this Section V.M. Certifications required under this Section V.M will be made in accordance with the provisions of Part IX.

145-147. Reserved.

N. Leak Detection and Repair ("LDAR") Program Enhancements

148. As of the Date of Entry, each existing "process unit" (as defined by 40 C.F.R. 60.591) at each of the Sinclair Refineries shall become an "affected facility" for purposes of 40 C.F.R. Part 60, Subpart GGG, and shall become subject to and comply with the requirements of 40 C.F.R. Part 60, Subpart GGG, and the requirements of this Section.

149. In order to minimize or eliminate fugitive emissions of volatile organic compounds ("VOCs"), benzene, volatile hazardous air pollutants ("VHAPs"), and organic

hazardous air pollutants ("HAPs") from equipment in light liquid and/or in gas/vapor service, the Sinclair Refineries shall implement the enhancements at Paragraph 150 through Paragraph 179 to their LDAR programs under Title 40 of the Code of Federal Regulations, Part 60, Subpart GGG; Part 61, Subparts J and V; Part 63, Subparts F, H, and CC. The terms "equipment," "in light liquid service" and "in gas/vapor service" shall have the definitions set forth in the applicable provisions of Title 40 of the Code of Federal Regulations, Part 60, Subparts VV and GGG; Part 61, Subparts J and V; Part 63, Subparts F, H and CC.

150. Written Refinery-Wide LDAR Program. By no later than 90 days after Date of Entry, the Sinclair Refineries shall develop and maintain a written, Refinery-wide program for compliance with all applicable federal and state LDAR regulations. The Sinclair Refineries shall implement this program on a Refinery-wide basis and update such program as may be necessary to ensure continuing compliance through and after termination. The Refinery-wide program shall include at a minimum:

(a) A facility-wide leak rate goal that includes specific process-unit leak rate goals that will be a target for achievement;

(b) An identification of all equipment in light liquid and/or in gas/vapor service in the Sinclair Refineries that has the potential to leak VOCs, HAPs, VHAPs, and benzene;

(c) Procedures for identifying leaking equipment within process units;

(d) Procedures for repairing and keeping track of leaking equipment;

(e) Procedures (*e.g.*, a Management of Change program) to ensure that components subject to LDAR requirements that are added to each facility during scheduled maintenance and construction activities are integrated into the LDAR program;

(f) A process for evaluating new and replacement LDAR equipment that includes active consideration of equipment or techniques that will minimize leaks and/or eliminate chronic leakers; and

(g) A definition of "LDAR Personnel" and a process for accountability, identifying for each facility the person or position that will be the "LDAR Coordinator." Consistent with the Sinclair Refineries' management authority, this person shall have the responsibility to implement improvements to the LDAR program.

151. The Sinclair Refineries shall submit a copy of each Facility's initial written LDAR Program to EPA and to the appropriate state agency. EPA shall review and may comment on the written program after an opportunity for consultation with the Applicable Co-Plaintiff. The Sinclair Refineries shall address EPA's comments (if any). A description of program changes shall be maintained on-site during the term of the Consent Decree but need not be submitted to the agencies.

152. Training. The Sinclair Refineries will commence implementation of the following training programs:

(a) As of the later of the date of Entry of this Consent Decree or December 31, 2007, for any employee newly-assigned to LDAR responsibilities, the Sinclair Refineries shall require that each such employee satisfactorily complete LDAR training prior to beginning any LDAR work;

(b) By no later than June 30, 2008, for all the Sinclair Refineries' employees assigned specific LDAR responsibilities as a primary job function, such as monitoring technicians, database users, QA/QC personnel and the LDAR Coordinator, the Sinclair Refineries shall provide and require completion of annual LDAR refresher training and initial training before the employee begins LDAR responsibilities;

(c) By no later than June 30, 2008, for all employee operations and maintenance personnel, the Sinclair Refineries shall provide and require completion of an initial training program that includes instruction on aspects of LDAR that are relevant to the person's duties. Refresher training for these personnel shall be performed every three years; and

(d) If contract employees are performing LDAR work, the Sinclair Refineries shall maintain all training records, as required under this Paragraph, for the contract employees.

153. LDAR Audits. The Sinclair Refineries shall implement the Refinery-wide audits set forth in Paragraphs 154-158 to ensure each Refinery's compliance with all applicable LDAR requirements. The LDAR audits shall include but not be limited to, comparative monitoring, records review to ensure monitoring and repairs were completed in the required periods, component identification procedures, tagging procedures, data management procedures, and observation of the LDAR technicians' calibration and monitoring techniques. During the LDAR

audits, leak rates shall be calculated for each process unit where comparative monitoring was performed.

154. Initial Compliance Audit. By no later than June 30, 2008 (or six months after the Date of Entry, whichever is later), the Sinclair Refineries shall engage a third-party contractor to undertake refinery-wide audits of its compliance with the LDAR regulations to include, at a minimum, each of the audit requirements set forth in Paragraphs 153-157. Within 30 days of completion of the each audit and by no later than December 31, 2008, the Sinclair Refineries shall report to EPA and the applicable state any areas of non-compliance identified as a result of its refinery-wide audit and submit in writing a proposed compliance schedule for correcting the non-compliance. Within 60 days of completing each audit and by no later than December 31, 2008 (or six months after the Date of Entry, whichever is later), the Sinclair Refineries shall certify to EPA that the refinery: is in compliance; has completed related corrective action (if necessary); and/or is on a compliance schedule.

155. Third-Party Audits. The Sinclair Refineries shall retain an independent contractor(s) with expertise in LDAR program requirements to perform a third-party audit of their LDAR programs at least once every four years.

156. Internal Audits. The Sinclair Refineries shall conduct internal audits of their LDAR programs by sending personnel familiar with LDAR program requirements from one Refinery to audit another Refinery. The Sinclair Refineries shall complete the first internal LDAR audit by no later than two years after the third-party audit is conducted according to Paragraph 155. Internal audits of each of the Sinclair Refineries shall be conducted at least once every four years thereafter. The Sinclair Refineries may elect to retain third-parties to undertake these internal audits, provided that an audit occurs every two (2) years.

157. Audit Every Two Years. To ensure that an audit at each of the Sinclair Refineries occurs every two years, third-party and internal audits shall be separated by two years.

158. Implementation of Actions Necessary to Correct Non-Compliance. If the results of any of the audits conducted pursuant to Paragraphs 154-156 identify any areas of non-compliance, the Sinclair Refineries shall implement all steps necessary: to correct the area(s) of

non-compliance as soon as practicable; and to prevent a recurrence of the cause of the non-compliance, to the extent practicable. Until two years after termination of this consent decree the Sinclair Refineries shall retain the audit reports generated pursuant to Paragraphs 154-156 and shall maintain a written record of the corrective actions that the Refinery takes in response to any deficiencies identified in any audits. In the quarterly report submitted pursuant to the provisions of Part IX of this Consent Decree (Recordkeeping and Reporting) for the first calendar quarter of each year, the Sinclair Refineries shall submit the audit reports and corrective action records for audits performed and actions taken during the previous calendar year.

159. Internal Leak Definition for Valves and Pumps. The Sinclair Refineries shall utilize the following internal leak definitions for valves and pumps in light liquid and/or gas/vapor service, unless other permit(s), regulations, or laws require the use of lower leak definitions.

160. Leak Definition for Valves. By no later than the Date of Entry, the Sinclair Refineries shall utilize an internal leak definition of 500 ppm VOCs for all of the Refineries' valves, excluding pressure relief devices.

161. Leak Definition for Pumps. By no later than the Date of Entry, the Sinclair Refineries shall utilize an internal leak definition of 2,000 ppm VOCs for all of the Refineries' pumps.

162. Reporting of Valves and Pumps Based on the Internal Leak Definitions. For regulatory reporting purposes, the Sinclair Refineries may continue to report leak rates in valves and pumps against the applicable regulatory leak definition or use the lower, internal leak definitions specified in Paragraphs 160-161. The Sinclair Refineries will identify in their report which definition is being used.

163. Recording, Tracking, Repairing and Re-Monitoring Leaks Based on the Internal Leak Definitions. By no later than the Date of Entry, the Sinclair Refineries shall record, track, repair and remonitor all leaks in excess of the internal leak definitions in Paragraphs 160-161. The Sinclair Refineries shall have five (5) days to make an initial repair attempt and remonitor the component under Paragraph 164 and thirty (30) days either to make repairs and remonitor

leaks that are greater than the internal leak definitions but less than the applicable regulatory leak definitions or to place the component on the delay of repair list according to Paragraph 175. All records of repairs, repair attempts, and remonitoring shall be maintained for the life of the Consent Decree.

164. Initial Attempt at Repair of Valves. Beginning no later than the Date of Entry, the Sinclair Refineries shall promptly make an "initial attempt" at repair on any valve that has a reading greater than 200 ppm of VOCs, excluding control valves and other valves that LDAR personnel are not authorized to repair. The Sinclair Refineries, or their designated contractor, shall re-monitor the leaking valve within five (5) days of identification. If the re-monitored leak reading is below the applicable leak definition, no further action will be necessary. If the re-monitored leak reading is greater than the applicable leak definition, the Sinclair Refineries shall repair the leaking valve according to the requirements under Paragraph 163. All records of repairs, repair attempts, and remonitoring shall be maintained for the life of the Consent Decree.

165. LDAR Monitoring Frequency: Pumps. Unless more frequent monitoring is required by a federal or state regulation when the lower internal leak definition for pumps becomes applicable pursuant to the provisions of Paragraph 161, the Sinclair Refineries shall begin monitoring pumps in light service, other than dual-mechanical seal pumps or pumps vented to a control device, at the lower leak definition on a monthly basis.

166. LDAR Monitoring Frequency: Valves. Unless more frequent monitoring is required by a federal or state regulation when the lower internal leak definition for valves becomes applicable pursuant to the provisions of Paragraph 160, the Sinclair Refineries shall monitor valves, other than difficult-to-monitor or unsafe-to-monitor valves, on a quarterly basis.

167. Monitoring after Turnaround or Maintenance. The Sinclair Refineries will have the option of monitoring affected valves and pumps within process unit(s) after completing a documented maintenance, startup, or shutdown activity without having leaks, detected at concentrations greater than the leak definitions required by this Consent Decree but less than regulatory leak definitions, count as a scheduled monitoring activity, provided the Sinclair Refineries monitor according to the following schedule:

(a) For events involving 1000 or fewer valves and pumps, monitor within one week of the documented maintenance, startup or shutdown activity;

(b) For events involving greater than 1000 but fewer than 5000 valves and pumps, monitor within two (2) weeks of the documented maintenance, startup, or shutdown activity; and

(c) For events involving greater than 5000 valves and pumps, monitor within four (4) weeks of the documented maintenance, startup, or shutdown activity.

168. Electronic Storing and Reporting of LDAR Data. The Sinclair Refineries have and will continue to maintain an electronic database for recordkeeping and reporting of LDAR data.

169. Electronic Data Collection During LDAR Monitoring and Transfer. Beginning no later than the Date of Entry, the Sinclair Refineries shall use dataloggers and/or electronic data collection devices during LDAR monitoring. The Sinclair Refineries, or their designated contractor, shall use its/their best efforts to transfer, on a daily basis, electronic data from electronic datalogging devices to the electronic database of Paragraph 168. For all monitoring events in which an electronic data collection device is used, the collected monitoring data shall include a time and date stamp, and instrument and operator identification. The Sinclair Refineries may use paper logs where necessary or more feasible (*e.g.*, small rounds, remonitoring, or when dataloggers are not available or broken), and shall record, at a minimum, the identification of the technician undertaking the monitoring, the date, the daily start and end time for monitoring, and the identification of the monitoring equipment. The Sinclair Refineries shall transfer any manually recorded monitoring data to the electronic database of Paragraph 168 within seven days of monitoring. The Sinclair Refineries shall maintain the LDAR information required by this paragraph for the life of the Consent Decree.

170. QA/QC of LDAR Data. Beginning no later than the Date of Entry, the Sinclair Refineries shall develop and implement procedures to ensure a quality assurance/quality control ("QA/QC") review of all data generated by LDAR monitoring technicians. The Sinclair Refineries shall ensure that monitoring collected by monitoring technicians is reviewed for QA/QC by the technician daily. At least once per calendar quarter, the Sinclair Refineries shall QA/QC the monitoring data collected during the quarter which shall include, but not be limited

to, an evaluation of the number of components monitored per technician, time between monitoring events, and abnormal data patterns. Results from LDAR monitoring shall be reported to unit supervisors daily.

171. LDAR Personnel. By no later than the Date of Entry shall establish a program that will hold LDAR personnel accountable for LDAR performance. The Sinclair Refineries shall maintain a position responsible for LDAR management, with the authority to implement improvements ("LDAR Coordinator").

172. Adding New Valves and Pumps. By no later than the Date of Entry, the Sinclair Refineries shall establish a tracking program for maintenance records (*e.g.*, a Management of Change program) to ensure that valves and pumps added to the Refineries during maintenance and construction are integrated into the LDAR program.

173. Calibration. The Sinclair Refineries shall conduct all calibrations of LDAR monitoring equipment using methane as the calibration gas, in accordance with 40 C.F.R. Part 60, App. A, EPA Reference Test Method 21, and shall maintain records of the calibrations for the life of the Consent Decree.

174. Calibration Drift Assessment. Beginning no later than the Date of Entry, the Sinclair Refineries shall conduct calibration drift assessments of LDAR monitoring equipment at the end of each monitoring shift, at a minimum. The Sinclair Refineries shall conduct the calibration drift assessment using, at a minimum, a 500 ppm calibration gas. If any calibration drift assessment after the initial calibration shows a negative drift of more than 10% from the previous calibration, the Sinclair Refineries shall remonitor all valves that were monitored since the last calibration that had a reading greater than 100 ppm and shall remonitor all pumps that were monitored since the last calibration that had a reading greater than 500 ppm.

175. Delay of Repair. Beginning no later than the Date of Entry, the Sinclair Refineries shall implement the following requirements for any equipment that it is allowed to place on the "delay of repair" list for repair under 40 CFR § 60.482-9(a):

a. For all equipment:

(1) Require sign-off by the unit supervisor that the piece of equipment is technically infeasible to repair without a process unit shutdown, before the component is eligible for inclusion on the "delay of repair" list; and

(2) Include equipment that is placed on the "delay of repair" list in the Sinclair Refineries' regular LDAR monitoring.

b. For valves: For valves (other than control valves) leaking at a rate of 10,000 ppm or greater that cannot otherwise be repaired, the Sinclair Refineries shall use "drill and tap" or similarly effective repair methods to repair such leaking valves, rather than placing the valve on the "delay of repair" list, unless the Sinclair Refineries can demonstrate that there is a safety, mechanical or major environmental concern posed by repairing the leak in this manner. The Sinclair Refineries shall make two repair attempts (if necessary) using "drill and tap" or similarly effective repair method within 30 days of identification of the leak. After two unsuccessful attempts to repair a leaking valve under this Paragraph 175.b, the Sinclair Refineries may place the leaking valve on its "delay of repair" list.

176. New Method of Repair for Leaking Valves. If a new valve repair method not currently in use by the refining industry is planned to be used by the Sinclair Refineries, the Sinclair Refineries will advise EPA prior to implementing such a method or, if prior notice is not practicable, as soon as practicable after implementation.

177. Chronic Leaker Program. The Sinclair Refineries shall replace, repack or perform similarly effective repairs on all chronically leaking non-control valves at the next process unit turnaround. A chronic leaker shall be defined as any component which leaks above 10,000 ppm twice in any consecutive four quarters. If a component has not leaked for a period of 12 consecutive quarters or more prior to a turnaround, it is exempt from the requirements in this Paragraph.

178. Reporting. Consistent with the requirements of Part IX (Recordkeeping and Reporting), the Sinclair Refineries shall include the information set forth below in the designated quarterly progress report(s):

a. First Quarterly Progress Report Due under the Consent Decree. At the later of: (i) the first quarterly progress report due under the Consent Decree; or (ii) the first